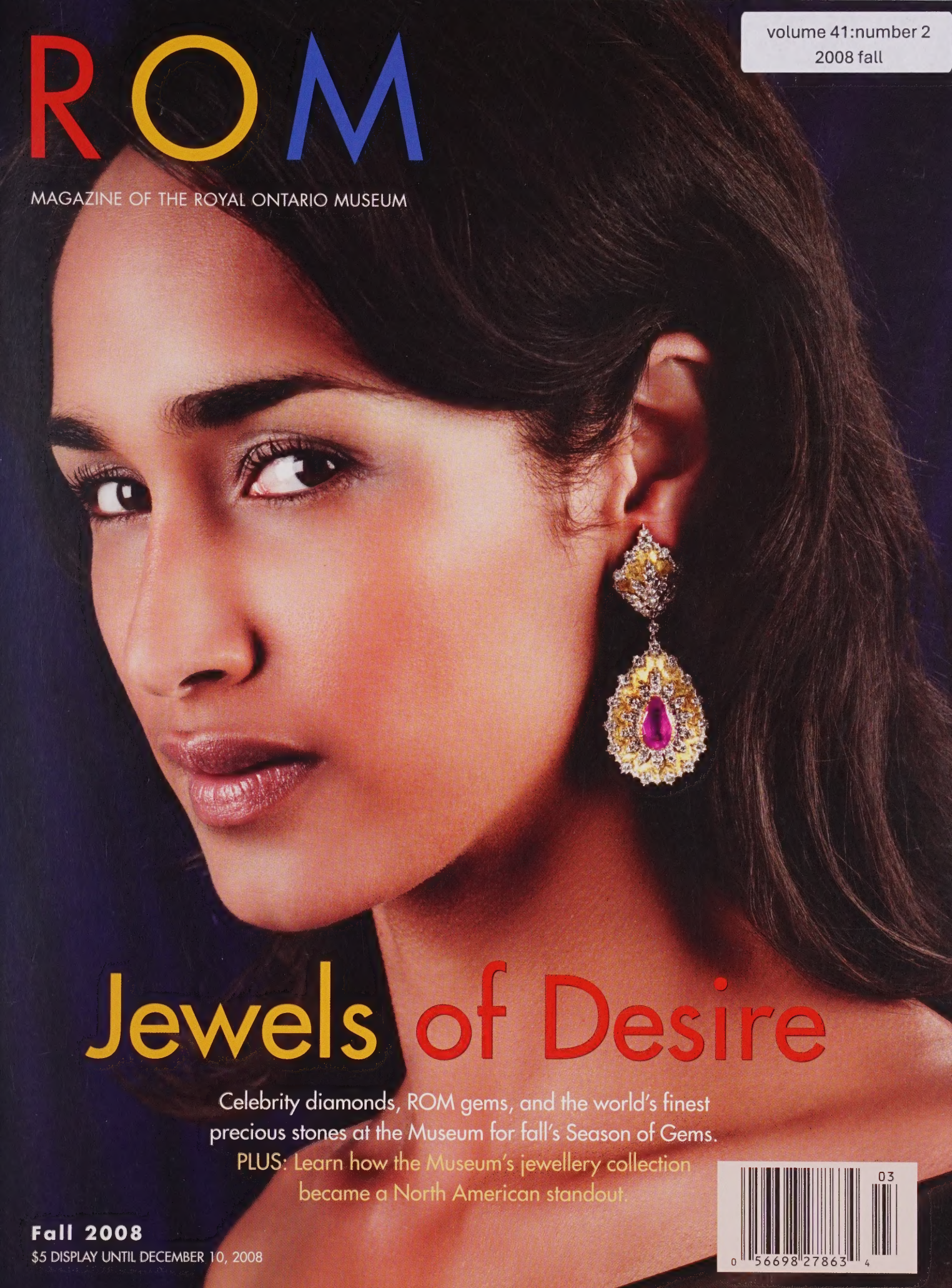
volume 41:number 2
2008 fall

ROM

MAGAZINE OF THE ROYAL ONTARIO MUSEUM



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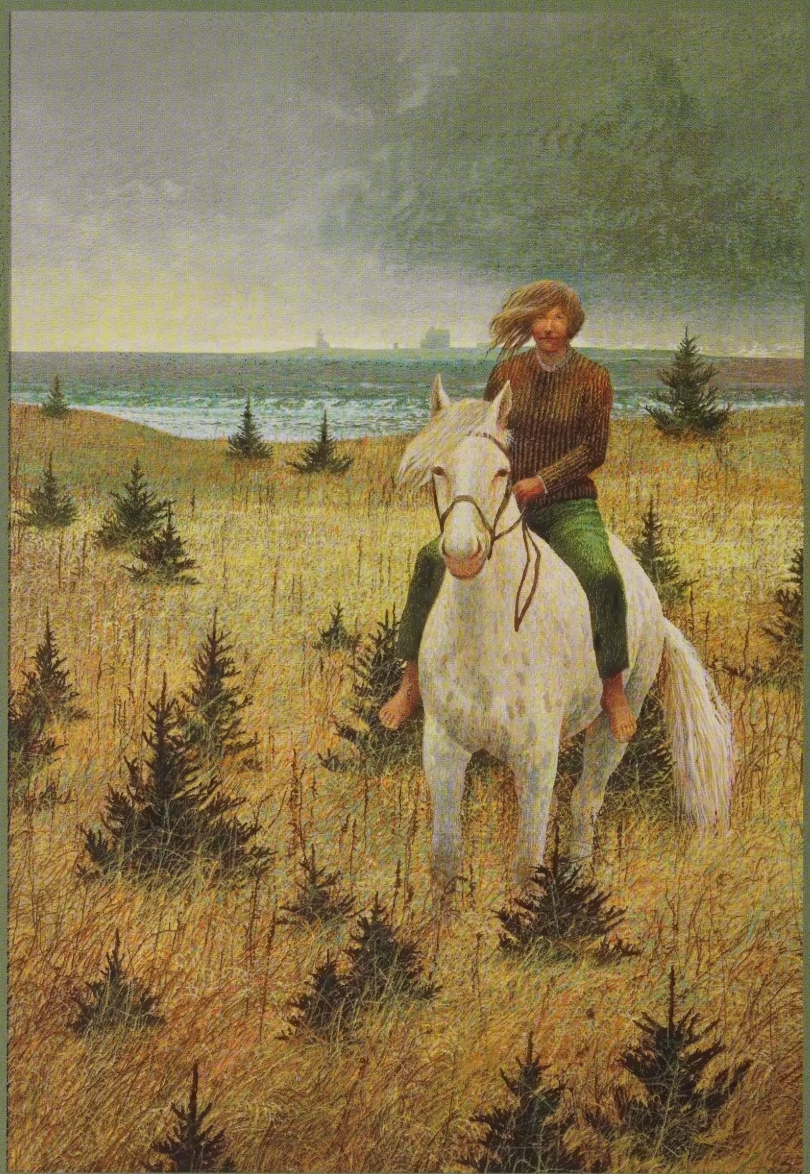

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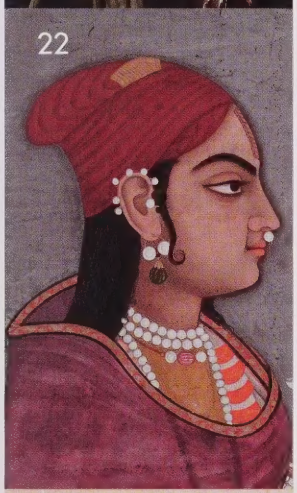

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On the Cover

Buccellati earrings modelled by Shani F. are just one of the spectacular donations to the ROM's jewellery collection.

PHOTOGRAPHY: BRIAN BOYLE, ROM; MODEL: SHANI F. (B&M MODELS); MAKEUP AND HAIR: DANNY MORROW FOR JUDY INC.; PROPS AND STYLING: KEIRA ENNESON FOR PETER ENNESON DESIGN INC.

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YOUR ROM

50 **Thanks, Friends, and Supporters**

50 Friends ROM to hire new curator of Japanese Art thanks to the help of the Friends of the Far East

Letter to the Editor

As contributors to the ROM, we have followed the design and construction of the Michael Lee-Chin Crystal with great interest. At the risk of going against prevailing trend, we believe the picture on pages 28 and 29 of the summer issue demonstrates the challenges the curators face in trying to accommodate the unique features of the new building. Did they intend to contrast the angular forms of human technology with the graceful curve of the *Barosaurus*, or was this the only space that could handle the size of the skeleton? If the latter, I believe "Gordo" deserves a better backdrop than the jumble of windows, pillars, and views of Bloor Street buildings. That said, kudos to the curators for doing as good a job as they have, given the space they had to work with.

April and Norbert Hoeller

Dear Mr. and Mrs. Hoeller

I wish I could say that we designed the placement of the *Barosaurus* in response to the angularity of the Lee-Chin Crystal—it creates such a wonderful architectural dialogue in the building—but that would only be partially true. We did raise the ceiling height of the second floor and leave enough room to accommodate a great sauropod. But we did not know early on that we would be mounting so large a specimen as Gordo. The truth is that this is the only place this great creature could fit. The James and Louise Temerty Galleries of the Age of Dinosaurs is one of the few Museum spaces filled with natural light, and this feature was a very conscious part of the design for our fossilized specimens.

Dan Rahimi
Executive Director,
Gallery Development

SHEILA FARRAGHER, ROM

SHEILA FARRAGHER, ROM

Kim Tait is associate curator of Mineralogy at the ROM and an assistant professor of geology at the University of Toronto. Before joining the Museum in 2007, she earned her Ph.D. at the Los Alamos National Laboratory in New Mexico. As a student, she worked two summers in Calgary drilling gas wells, and two underground at a gold mine in Nunavut. She also spent a summer exploring for diamonds, flying in helicopters and swatting mosquitoes and blackflies in northern Manitoba.

At the ROM, Tait is busy with the openings of *The Nature of Diamonds* in October and the Teck Suite of Earth Sciences Galleries in December. Her favourite piece of ROM jewellery is the 20-carat emerald ring featured on page 23. Not only does it boast a fantastic stone, but it also holds sentimental significance: it was her first acquisition as a curator, and it indirectly helped save her wedding day. Shortly after the emerald ring's purchase from a Toronto antique shop, when the plain platinum wedding band Tait's fiancé had ordered elsewhere didn't arrive in time, they rushed to the shop and bought an eternity band—a near-perfect match to her engagement ring.

A technician with the ROM's Earth Sciences collections since 1997, **Katherine M. Dunnell** developed an appreciation for museums in childhood when she frequently visited the ROM and the Detroit Institute of Art. Before joining the Museum, Dunnell earned honours degrees in physical geography and geology at the University of Windsor, and worked with the Ontario Geological Survey and the Great Lakes Institute for Environmental Research. At the institute, she took sediment samples from Lake Erie and collected zebra mussels for analysis; her studies focused on heavy metals. At the ROM, she has helped develop several exhibitions, among them *The Black Star Sapphire of Queensland* (2007); *Italian Arts & Design: The 20th Century* (2006); *Pearls: A Natural History* (2005); and for the Greater Toronto Area Authority, *Our Crystalline World, Its Many Faces* (2004). Dunnell is a frequent lecturer at the ROM, as well as for outside groups interested in mineralogy. Gems and jewellery remain her focus and passion.

Unusually for a facelift, we're telling everybody.

Scrutiny's a given. So yes, we don't just admit to a facelift, we trumpet it. The surgeons of Stuttgart have worked their wizardry. Curved headlamps complement the sleek, sophisticated contours of this unique four-door coupe. Inside, laurel wood and leather purr refinement. Which is also an apt term for the road manners the self-adjusting AIRMATIC DC suspension gives it.
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ROM
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ROYAL ONTARIO MUSEUM

EXECUTIVE EDITOR
Victoria Littler
EDITOR
Lee-Anne Jack
DESIGN AND PRODUCTION
Peter Enneson Design Inc.
CONSULTING EDITOR
Anna Kohn
COPY EDITORS
Andrea Gallagher Ellis, Pamela Capraru
CONTRIBUTING EDITORS
Cathy Ayley
Mary Burridge
Glen Ellis
Mark Engstrom
Peter Kaellgren
Dave Rudkin
Kevin Seymour
Janet Waddington
Marianne Webb

BUSINESS DEVELOPMENT MANAGER
Colin Hennigar
416.586.5546

EDITORIAL AND MARKETING OFFICES
ROM, the magazine of the
Royal Ontario Museum,
100 Queen's Park, Toronto,
Ontario M5S 2C6
Phone: 416.586.5585
E-mail: lee-anne@rom.on.ca
ROM Web site: www.rom.on.ca

Published four times per year by the Royal Ontario Museum Governors. © The Royal Ontario Museum, 2008. Printed and bound in Canada. Indexed in the Canadian Periodical Index and the Canadian Magazine Index and available on-line in the Canadian Business & Current Affairs Database ISSN 1911-947X and through Thomson Gale. Canadian Publications Agreement # 40068986.

Return undeliverable Canadian addresses to Membership Department, 100 Queen's Park, Toronto, Ontario M5S 2C6

SUBSCRIPTIONS & SINGLE COPY SALES
Subscriptions cost $17 (4 issues) including GST, outside Canada add $8 for postage and handling; single copies cost $5 plus GST. All circulation and subscription inquiries should be addressed to
ROM magazine
Royal Ontario Museum,
100 Queen's Park,
Toronto, Ontario
M5S 2C6
Phone: 416.586.5546
Fax: 416.586.5649
E-mail: magazine@rom.on.ca

PUBLISHED BY
The Royal Ontario Museum Governors through the generosity of the Louise Hawley Stone Charitable Trust.

MEETING PLACE OF THE MINDS

At a conference in Rome in 2006, we introduced the idea of the museum—and the ROM in particur—as the "New Agora." We are now starting to see what this can mean. In ancient Athens the agora was the central meeting place—the town square—where the public's business was conducted, a common ground with a multiplicity of uses. It is this idea that speaks so strongly to our current time. Through immigration and technology, our society has become enormously diverse.

The ROM is a universal museum of cultures and a significant museum of natural history. With such mandates and a location at the epicentre of Canada's largest city, the ROM is perfectly suited to serve as a common ground in a diverse society, where the virtues of variety prevail over the risks. It's a public space that everyone can feel is their own. Let us count some of the ways this aspiration is coming to light this fall.

Through the ROM's Institute for Contemporary Culture, we are hosting the annual Sobey Art Award Exhibition—sometimes called Canada's Turner Prize. It will be free to the public during Nuit Blanche on October 4.

Also in October, the ROM presents a major exhibition, *The Nature of Diamonds*, co-developed with the American Museum of Natural History in New York.

Diamonds will be very much in evidence at the Material Ball in November, which celebrates the opening of the Patricia Harris Gallery of Textiles & Costume earlier this year—and will feature a major international fashion house presenting its new line. On November 20, Glenn Lowry, director of the Museum of Modern Art in New York, will explore issues in Islamic art at the annual Eva Holtby Lecture on Contemporary Culture.

And on November 29, Kateryna Yushchenko, the First Lady of Ukraine, will attend the gala opening of a major original exhibition on the Trypilian culture of ancient Ukraine, created by the ROM in cooperation with the National Museum of Ukraine in Kiev.

In December, we open our new permanent galleries of minerals, gems, and jewels, and for the first time, a Canadian Mining Hall of Fame within the Museum.

In February, we open Canada's most ambitious permanent hall of biodiversity—the Schad Gallery—exploring seven ecosystems around the world with hundreds of specimens, some of them live.

Through all this, we continue to offer musical programs, seminars, and lectures, and the opportunity to rent the ROM after hours for weddings and banquets.

Watch for news about an extraordinary exhibition the ROM is bringing to Canada in the summer of 2009.

The museum as the New Agora is an attractive vision in a modern city. Visit the ROM this year and watch the vision emerge, knowing there is much more yet to come.

William Thorsell is director and CEO of the Royal Ontario Museum.

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THE NATURE OF

SATURDAY, OCTOBER 25, 2008, TO SUNDAY,

© SIEGELSON AURORA GEMS COLLECTION. PHOTO BY ROBERT WELDON. © AURORA GEMS

PHOTO BY N. WELSH © CARTIER

PHOTO BY RICHARD GOODBODY © CAMILLA DIETZ BERGERON

PHOTO BY N. WELSH © CARTIER

Cut, carat, colour, and clarity—these are the standards by which diamonds are judged as gemstones. Now, you can judge for yourself as the ROM explores the rich and storied history of diamonds with spectacular pieces of jewellery and stunning gemstones. Displayed in the ROM's Garfield Weston Exhibition Hall, *The Nature of Diamonds* is the most wide-ranging exhibition ever developed on the subject, exploring topics from diamond's geological origins and how it is mined and prepared for trade to its cultural significance in art, literature, and ornamentation and its numerous uses in modern science and technology. And … did we mention jewellery?

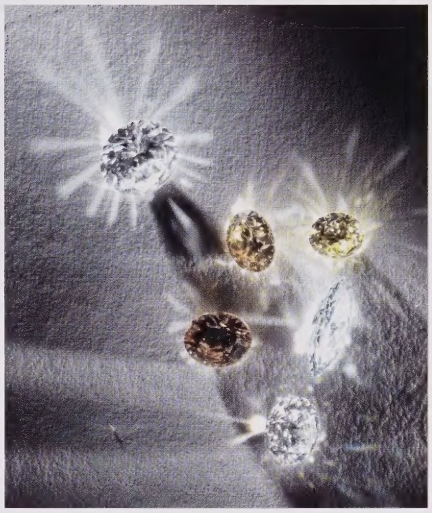
The exhibition showcases approximately 500 magnificent objects, including a dazzling diamond-and-platinum brooch by Cartier formerly owned by Sir Elton John; a white gold mesh necklace dotted with rough diamonds and cultured keshi pearls created recently by acclaimed Toronto-born architect Frank Gehry for Tiffany & Company; and a corsage ornament belonging to Princess Mathilde, niece of Napoleon Bonaparte, made from an incredible 2,600 diamonds. The show features pieces drawn from major museums and private lenders from around the world, including Cartier, Tiffany & Co., Van Cleef & Arpels, and presenting sponsor, De Beers Canada. At this time, the ROM is the sole Canadian venue to host the exhibition during its exclusive North American tour.

The show looks at diamond legend and lore, featuring an assortment of ancient and medieval jewellery, a collection of historically significant artifacts loaned by the Hispanic Society of America, as well as manuscripts and artifacts that demonstrate how the gems spread to the

DIAMONDS

MARCH 22, 2009

Opposite page: Top: Twin cornucopia brooch by Cartier, Paris, 1899. Diamonds, silver, gold. Cartier Collection. **Middle, left:** "The Aurora Butterfly of Peace," a suite of 240 diamonds representing every variety of fancy coloured diamond, assembled by Alan Bronstein and Harry Rodman of Aurora Gems, Inc., New York. **Middle, right:** "Hand of God" brooch by Paul Flato, USA, c. 1940. Diamonds, gold, platinum. Camilla Dietz Bergeron Collection. **Bottom:** Princess Mathilde corsage ornament by Theodore Fester, c. 1855. Diamonds, silver-topped gold. Made for the niece of Napoleon I. Siegelson Collection. **This page: Left:** Shoulder brooch by Cartier, New York, 1928. Diamonds, platinum. Formerly owned by Sir Elton John. Cartier Collection. **Right:** Selection of ROM diamonds. **Bottom:** Kokoshnik tiara by Cartier, Paris, 1911. Diamonds, platinum, millegrain setting.



BRIAN BOYLE, ROM

West from India, where they were first mined. A selection of 15th through 19th century jewellery and an impressive collection of diamond betrothal rings illustrate historical adornment while modern pieces, including a platinum eternity ring with 35 baguette diamonds created in 2002 based on Marilyn Monroe's ring from her 1954 marriage to Joe DiMaggio, beautifully demonstrate the transition from the "royal diamonds" tradition to "everyone's diamonds." Many of these objects have not been seen by the public in 50 years and have never been on loan.

The exhibition also examines diamond geology and exploration and its uses in modern technology. Visitors may be surprised to learn that, since the 1998 opening of its first diamond mine, Canada has become the third largest diamond producer by value in the world. Beautiful rough and cut diamonds from the ROM's own renowned collections are among the highlights.

The ROM has produced two videos for the exhibition; one showcases the fairly recent discovery of Canadian diamonds and the second presents the history and current state of the Canadian diamond mining industry.

But the not-to-be-missed highlight of the show is the walk-in gem vault housing the exhibition's most dazzling objects.

The Nature of Diamonds *is organized by the American Museum of Natural History, New York, in collaboration with the Royal Ontario Museum, Toronto; The Field Museum, Chicago; and the Houston Museum of Natural Science.*

Presented by:

De Beers CANADA

Paint generously donated by: Farrow & Ball

BEYOND THE EXHIBITION

■ **Members' Preview**

On Friday, October 24, 2008, ROM Members get an exclusive sneak peek at the exhibition. A free lecture on the show will be repeated throughout the day. For details call 416.586.5700 or visit rom.on.ca/events.

■ **Material Ball: Diamonds**

The ROM celebrates the exhibition with a gala fundraising event on November 13, 2008. Featuring a fashion show and sultry entertainment, this year's ball promises to live up to the glamour of its predecessors. Proceeds support the Burnham Brett Endowment for Textiles and Costume and the Renaissance ROM campaign. Contact Kirsten Kamper, 416.586.8064 or at kirstenk@rom.on.ca.

■ **Programs**

A range of diamond-related programs will be offered (see page 16). For details, call 416.586.5797 or go to rom.on.ca/programs.

■ **Tours**

Volunteer guides offer tours of the exhibition at regularly scheduled times throughout its engagement.

■ **Shopping**

A dedicated Diamonds Shop within the exhibition carries a wide array of jewellery, home décor, clothing, stationary, and geological specimens.

PHOTO BY N. WELSH © CARTIER

MYSTERIES OF ANCIENT UK
REMARKABLE TRYPILIAN CU

SATURDAY, NOVEMBER 29, 2008, TO SUNDAY MARC

ROYAL ONTARIO MUSEUM © 2008. ALL RIGHTS RESERVED.

This page, clockwise from left: This delicate figurine epitomizes Trypilian art. 3000–2700 BCE. National Museum of History of Ukraine; woman's head with realistic expression. 3500–3000 BCE. National Museum of History of Ukraine; vessel fragment in the shape of a boar. c. 4000 BCE. Institute of Archaeology, National Academy of Sciences of Ukraine; a "Zernovik," or large grain container. 4500–4100 BCE. Institute of Archaeology, National Academy of Sciences of Ukraine; the function of these bottomless "binocular" objects remains a mystery. 4500–4000 BCE. Museum of Archaeology, National Academy of Sciences of Ukraine; the likeness between this Trypilian male portrait and those of the geographically distant Vinča culture raises questions as to how culturally close the groups were. 3750–3500 BCE. Maidanetske, Cherkasy Institute of Archaeology, National Academy of Sciences of Ukraine.

The world's first large-scale exhibition on Trypilia, *Mysteries of Ancient Ukraine* explores the compelling, sophisticated culture that existed in present-day Ukraine 5,000 to 7,000 years ago. This civilization created the largest settlements anywhere in the world at that time, only to disappear inexplicably. We know of it only through artifacts, some 300 of which will be on display, most for the first time in North America.

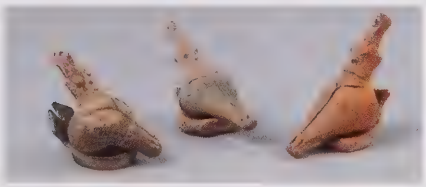
Ukrainian archaeologist Vikenty Khvoika found the first remains of this prehistoric people in 1896, the great age of archaeological discoveries that also unearthed Troy, Mycenae, Knossos, and the many civilizations of Mesopotamia. Near the village of Trypilia he found tools, items of adornment, ceramic figures, earthenware, portraits, and pottery. The exhibition, whose honorary patron is Ukraine's First Lady, Kateryna Yushchenko, features items personally excavated by Khvoika as well as those from numerous other Trypilian sites. Objects from the ROM's collections are also on view.

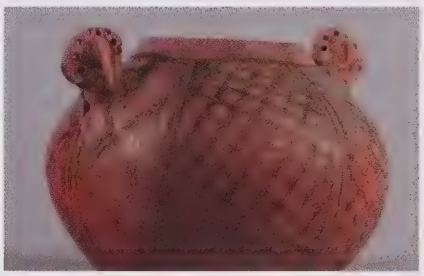
Thought to have flourished in the forest-steppe region of present-day Ukraine, the Trypilian people were not only expert farmers, herders, and craftsmen, they also excelled in pottery making evident in the technical and artistic excellence of the pieces on display, considered second to none in the neolithic world.

But what the culture may best be known for is its

RAINE: THE
TURE (5400–2700 BCE)

22, 2009





This page, clockwise from left: Images of overweight or pregnant females are ubiquitous in all Old World neolithic cultures, evidence of the important role, of women and motherhood. 4900–4500 BCE. Odessa Archaeological Museum; Trypilian potters' favoured geometric style. c. 4000 BCE. Institute of Archaeology, National Academy of Sciences of Ukraine; the unusual shape of this vessel suggests it may have had a mystical function. 3000–2700 BCE. National Museum of History of Ukraine; construction details can be seen in this model house, such as posts supporting adobe-filled walls and roof rafters. 4100–3800 BCE. Vinnytsia Regional Museum.

two-storey houses and giant settlements, which the Trypilians burned to the ground every 60 to 80 years before moving to a new location.

Archaeologists are uncertain about why this culture disappeared, says exhibition curator Dr. Krzysztof Ciuk. There is no evidence that it succumbed to conquest.

Mysteries of Ancient Ukraine examines in detail who these people were, how they lived, and how archaeologists have tried to make sense of this hitherto lost society.

Archaeological work continues in Ukraine today as researchers piece together the secrets of this ancient civilization.

Exhibition Patron: Ukrainian Canadian Foundation of Taras Shevchenko

Benefactor: Dopomoha Ukraini Foundation and Wrzesnewskyj Family

This exhibition was organized by the ROM in collaboration with the National Museum of History of Ukraine (Kyiv, Ukraine); the Institute of Archaeology, Academy of Sciences of Ukraine (Kyiv, Ukraine); and the Archaeological Museum of Odessa of the National Academy of Sciences of Ukraine (Odessa, Ukraine).

BEYOND THE EXHIBITION

Ukrainian Day

On Sunday, November 30, 2008, the ROM presents Ukrainian-themed events and activities and local Ukrainian Canadian artists will showcase their work. Look for details on the internet at rom.on.ca.

ROM Museum Store

Select books on Ukrainian culture and cuisine, custom jewellery and home décor featuring Trypilian motifs, as well as works created by local Ukrainian Canadian artists will be available. An authoritative 176-page catalogue, an essential companion to the exhibition, sells for $65 plus taxes.

Restaurants

Food Studio and c5 Restaurant Lounge offer a variety of sweet and savoury Ukrainian-inspired menu items.

School Visits

Students at both elementary and secondary levels can explore this fascinating civilization. For details, teachers can contact www.rom.on.ca/schools or 416.586.5801.

WHAT'S ON AT THE ROM | FEATURED EXHIBITION

OUT OF THE VAULTS

AUTUMN, 2008

For the first time in several decades, two of the ROM's most intriguing artifacts will come out of the vaults for display—for a limited time only.

SITTING BULL'S HEADDRESS

BRIAN BOYLE, ROM

Recognized for his role in the Battle of Little Bighorn, this great Sioux warrior holds legendary status in our lore. Now, after more than 50 years of safekeeping, we are bringing this magnificent artifact out for 6 to 12 months.

MARIE ANTOINETTE'S GOWN

Worn by one of the most notorious women in history, this exquisite piece—last displayed in 1972—is on view from October 11 to 26, 2008, before its loan to the palace of Versailles. Come celebrate Toronto Fashion Week by seeing this incredible example of 18th-century French couture.

CONTINUING EXHIBITIONS

Installation by Terence Koh, Exhibition of the 2008 Sobey Art Award, presented by Scotiabank.

PHOTO: THOMAS BLANCHARD / COURTESY OF THE ARTIST AND SHANGHART GALLERY. / 925.13.68 A-B/BRIAN BOYLE, ROM

Sobey Art Award Exhibition

■ The Sobey Art Award is Canada's pre-eminent prize for young Canadian artists, and is awarded every year to an artist 39 or younger. The exhibition features work by this year's five finalists, one each from these regions: the Atlantic; Quebec; Ontario; the Prairies and the North; and the West Coast. The thought-provoking work of finalists Tim Lee, Daniel Barrow, Terence Koh, Raphaelle de Groot, and Mario Doucette places them in the avant-garde and represents the remarkable breadth of practice that makes up contemporary Canadian art.

Third floor Centre Block • Until October 13, 2008

Decorative Arts in the Art Deco Style from the Collection of Bernard and Sylvia Ostry

■ Noted Canadian collectors Sylvia Ostry and the late Bernard Ostry generously donated a significant collection of Art Deco furniture, lamps, and sculptures to the ROM. The collection dates mainly from 1920s and 1930s France.

Samuel European Galleries, Third Floor • Indefinite run

Glimpses of Byzantium

■ More than 80 artifacts dating from the 6th and 7th centuries are drawn from the ROM's fine Byzantine collection, the most important in Canada and one of the top five in North America.

Third Floor • Until December 2008

Shanghai 1860-1949: Historical Photographs

■ This companion exhibition to *Shanghai Kaleidoscope* features more than 80 historical photographs that explore a rich yet tumultuous period of Shanghai's history, highlighting the architecture, surroundings, inhabitants, and way of life in China's foremost commercial and cultural centre. The images are selected from the ROM's extensive collection of historical photographs, including recent gifts from Joey and Toby Tanenbaum, Jacob Way, and Amelia Gertrud Way-Evans.

Herman Herzog Levy Gallery, Main Floor • Until October 26, 2008 • Exhibit Sponsor: Manulife Financial

Shanghai Kaleidoscope

■ Showcasing the works of an emerging generation of Chinese artists, architects, and fashion designers, *Shanghai Kaleidoscope* offers an unprecedented view of one of the world's most dynamic and rapidly evolving cities.

Light and Easy II (2002), by Yang Zhenzhong. Single-channel video, sound.

The Institute for Contemporary Culture's Roloff Beny Gallery, Level 4 of the Michael Lee-Chin Crystal • Until November 2, 2008 • Presented by: Manulife Financial. Exhibit Patrons: Cathay Pacific and Interbrand. Program Collaborator: Chinese Cultural Center of Greater Toronto

Wedgwood: Artistry and Innovation

■ Through some 100 historical and contemporary pieces of Wedgwood wares,

Cassolette of white jasperware with blue dip. English, Wedgwood, c. 1790.

Wedgwood: Artistry and Innovation explores the genius of founder Josiah Wedgwood I (1730–1795), whose diverse and high-quality products and business practices revolutionized the English ceramics industry in the 18th century.

Samuel European Galleries, Third Floor • Until July 5, 2009 • Paint generously donated by: Farrow & Ball

For exhibition details, go to the ROM's Web site at rom.on.ca

UKRAINIAN PRESIDENT VISITS THE ROM

SNEAK PEEK AT *MYSTERIES OF ANCIENT UKRAINE* IMPRESSES

ROM director and CEO William Thorsell (left) and Board chairman James Temerty (right) share a joke with Ukrainian President Viktor Yushchenko.

On May 28, 2008, President Viktor Yushchenko was greeted at the ROM by a large gathering of Toronto's Ukrainian community, with a special welcoming party of children in the country's traditional dress. President Yushchenko and his wife, Kateryna, were also presented with the customary Ukrainian welcome gift of bread on their arrival at the ROM. They came to view preliminary plans for the exhibition *Mysteries of Ancient Ukraine: The Remarkable Trypilian Culture*, opening at the Museum in November (see page 8 for details). The First Lady is honorary patron of the show, and both she and the president were delighted with what they saw.

The ancient Trypilian civilization, discovered in what is now Ukraine, was lost to history for millennia until 1896, when it was uncovered during the great age of archaeological exploration that also unearthed Troy, Mycenae, Knossos, and the civilizations of Mesopotamia; the Trypilian culture predates all of them.

Some Trypilian settlements were inhabited by up to 20,000 people. "That is a remarkable sized populace for one place 7,000 years ago—it is bigger than any Sumerian city that ensued," says Krzysztof Ciuk, the exhibition's curator. "But you don't hear about Trypillia. The ROM will be the first major museum in North America to bring this untold story to the public."

ROM UNLEASHES COOL BIKE RACKS

In June, the ROM made cycling to the Museum a little easier and much more stylish with the installation of 12 new bike stands, quickly dubbed the city's coolest bike racks. Designed by Toronto artists Jack Gibney and Phil Sarazen, and inspired by objects from the ROM's collections—a sabre-toothed mammal, the head of Queen Nefertiti, a Chinese two-headed bird, and more—the stands lining Queen's Park serve double duty as unique decorative sculptures.

"With so many of our visitors and staff biking to the Museum, it's important to support Toronto's cycling culture," says William Thorsell, director and CEO of the ROM. During their research for the functional public art, forged from 5-centimetre- (2-inch-) thick galvanized steel, the artists took more than 1,000 pictures of ROM artifacts and specimens—even items from the ROM Museum Store.

BRIAN BOYLE, ROM

One of the bike racks on Avenue Road.

The racks were produced in collaboration with the artists and the City of Toronto, and Councillor Adrian Heaps, chair of the cycling advisory committee, joined Thorsell to unveil the new bike stands during Bike Month in Toronto.

TEA TO PRESERVE A PALAMPORE

See this exotic textile before it goes back in the vaults.

Considered one of the jewels of the ROM's Textile Collection, this early 18th-century palampore, or bedcover, from India's Coromandel Coast is decorated with an intricate tree of life design inspired by a mélange of Persian, European, Indian, and Chinese styles. First hand-painted, then resist-dyed, and embellished with gold leaf, Indian chintz fabrics were exported specifically for the European market as bedspreads, wall hangings, and clothing.

More than three months of painstaking conservation work was needed to prepare the ROM's palampore for exhibition in the Sir Christopher Ondaatje South Asian Gallery. But, due to its sensitivity to light, this unique example of hybrid design must soon come off display and return to the vaults for safekeeping. Take this last opportunity to see the palampore and learn about its fascinating history at a Sunday tea presented by the Friends of South Asia and the Friends of Textiles. Textiles conservator Shirley Ellis and curators Alexandra Palmer and Deepali Dewan tell this piece's story from

934.4.13/BRIAN BOYLE, ROM

Palampore, Coromandel Coast, c. 1750.

CURATOR'S CORNER

Free lecture series for Members 55+.

RSVP to rom.on.ca/membership or 416.586.5700. All lectures take place in the Signy and Cléophée Eaton Theatre.

920.25.35. BEQUEST OF MRS. A. S. BOWLBY. FROM THE G. HERBERT BOWLBY WEDGWOOD COLLECTION

Portrait of Josiah Wedgwood I, possibly 1790–1825, after Hackwood's design of 1777.

Wedgwood: 250 Years of Excellence

Wednesday, September 24, 2008
11 am to Noon

An exceptional innovator and businessman in the fine china industry, Josiah Wedgwood I found success in the pursuit of excellence during the 1700s. After more than five generations, his company is still successful today.

Coinciding with the 250th anniversary of Wedgwood's founding, the ROM is showing *Wedgwood: Artistry and Innovation*. Dr. Peter Kaellgren will examine the history and achievements of the company through the ROM's intriguing works.
Speaker: Dr. Peter Kaellgren, curator, ROM Department of World Cultures

Diamonds: In Our Backyard

Wednesday, October 29, 2008
11 am to Noon

In the late 1990s, *The Nature of Diamonds* was a huge success. Now, the exhibition is on the road again, and the new tour kicks off at the ROM. The show explores humankind's centuries-long fascination with this glittering gem, from its geological origins, to its cultural significance, as well as its many uses in modern science and technology. Dr. Kim Tait will present in-depth stories of highlight pieces and explore some intriguing Canadian diamond stories.
Speaker: Dr. Kimberly Tait, curator of mineralogy, ROM's Department of Natural History

Biodiversity Research in Guyana

Wednesday, November 26, 2008
11 am to Noon

One of the world's biodiversity hotspots, the mountains of Guyana are in a difficult-to-access region, making their flora and fauna poorly known. ROM biologists have changed all that since their travels to study the local amphibians and reptiles. Ross MacCulloch discusses his adventures in the study of Guyanese biodiversity.
Speaker: Ross MacCulloch, assistant curator, ROM's Department of Natural History

JUST FOR MEMBERS

For the latest news and details about Members' programs and events, go to rom.on.ca/members or call 416.586.5700.

2-FOR-1 ADMISSION AT THE GARDINER MUSEUM

ROM Members can now receive two regular admissions to the Gardiner

PHOTO COURTESY THE GARDINER MUSEUM

Museum for the price of one (children 12 and under are free).* Members must present their membership card at the time of purchase.

ROM Members are also entitled to a 10% discount in the Gardiner Museum Shop when they present their membership card.*

For more information about offers for ROM Members, please visit rom.on.ca/members.

** This offer and the shop discount apply only to regular-price admissions and cannot be combined with any other offer.*

NEW FOR SENIORS

Every Wednesday starting September 17, seniors enjoy free guided tours in the morning and film screenings or lectures in the afternoon. They'll also receive discounts in Food Studio, the ROM's fresh market eatery. And, as always, seniors receive discounted ROM admission. For details, go to rom.on.ca.

production and collection to conservation and display.

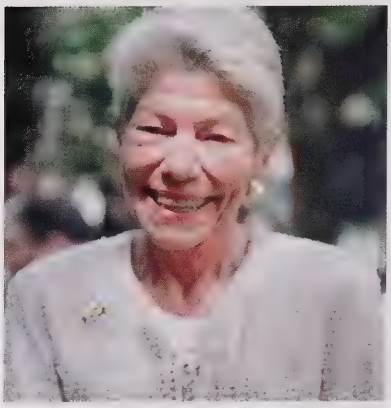
Event: The Passage of a Palampore: From India to the ROM
When: Sunday, October 26, 2008 2:30 to 4 pm
Where: RBC Foundation Glass Room, ROM
Cost: Free for FSA and FTC members. Non-members, $5

ROM CELEBRATES A FRIEND WITH A LIVING MEMORIAL

In mid-June, the ROM unveiled the Elizabeth Samuel Garden, an 880-square-metre (9,500-square-foot) green roof on the southern portion of the Museum's Philosophers' Walk wing. Liza's Garden, as Mrs. Samuel wanted it to be known, is visible through the south windows of c5 Restaurant Lounge. A gift from several trustees, the garden was created in honour of the former chair of the ROM Board of Trustees, who passed away in March. As a long-standing patron and former board chair, Mrs. Samuel continued her family's century of extraordinary generosity toward the building of the Museum during her lifetime.

"Liza Samuel was a wonderful friend of the Museum and served in numerous roles over many years," says ROM director and CEO William Thorsell. "We now have the garden to remember her by, a fitting tribute to a woman who was passionate about her own garden and all things green."

Designed by Plant Architect Inc. and green roof consultants Gardens in the Sky, Liza's Garden supports a staggered grid of trees that capture the movements of the wind, and tilted planting beds that reclaim rain and snow. The garden will enhance the ROM's sustainability through storm water retention, reduction of the heat island effect, and the provision of bird and insect habitat.



JEFF SPEED

Liza Samuel

Already Plant Architect Inc. has been awarded a Regional Merit award from the Canadian Society of Landscape Architects for the design of Liza's Garden. Watch for the spring 2009 issue of *ROM* magazine in which the Museum's botany curators discuss how the garden was installed in a mere 8 centimetres (3 inches) of soil.

Liza's Garden was funded by Liza Samuel's former board colleagues, her family and friends, members of the Department of Museum Volunteers, and other generous donations made in her memory. The TD Friends of the Environment Foundation, Compass Canada, the City of Toronto Green Roof Incentive Program, and an anonymous donor provided additional support.

Lighting consultant: Suzanne Powaduk ★ Structural and roofing membrane: Halsall Engineering

TUNE IN TO THE ROM'S COLLECTIONS

Three new audio guided-tours will soon be provided for the Museum's most popular galleries: Dinosaurs, Ancient Egypt, and Medieval Europe. Visitors purchasing ROM tickets online (at rom.on.ca) can download the guides for free. Members, stay tuned for details in the upcoming Members' e-newsletter. You'll receive a special link to access the guides.

NEW ARRIVALS: ROM DINOSAURS AT PEARSON INTERNATIONAL

In collaboration with the Greater Toronto Airport Authority, the ROM has unveiled a dramatic display of two cast skeleton dinosaurs at Pearson International Airport. Until 2012, international passengers arriving at Terminal 1 will be welcomed by the installation *A Scene from the Late Jurassic*, capturing a moment in time 150 million years ago. In it, a small herbivore, *Othnielia rex*—which would have cropped low-growing vegetation

DAVID MCKAY, ROM

Dinos at Pearson International

with its turtlelike beak—has tripped to the ground as *Allosaurus*, the most common large meat-eating dinosaur of the Late Jurassic period, bears down.

The scene takes place against a backdrop of fossil-rich sedimentary rocks of the Morrison Formation, widely found throughout the western United States. It was conceived and overseen by Dr. David Evans, associate curator of Vertebrate Paleontology at the ROM, and constructed by the craftsmen of Research Casting International. The display is part of a larger exhibition program launched in April 2004 and designed and produced by the ROM, showcasing Canadian art and culture. For details on the GTAA Exhibition Program, visit gtaa.com/artprogram.

COUNTDOWN TO COMPLETION

Ask any Olympic athlete: the last stretch is what you train for. Athletes train for months, years, building success upon success to reach that final goal. If the first leg of the race is any indicator of success, the Renaissance ROM Campaign will continue to surpass all expectations. Since 2002, over $270 million dollars has been raised from all sources, making it the most successful cultural campaign in Canada. Of this $270 million, $197.5 million has come from the private sector: $160 million for the campaign and $37.5 million for related priorities. This remarkable expression of generosity is well beyond the original campaign goal and a tremendous sign of support for the project.

The impact of Renaissance ROM has been felt in every corner of the Museum—from the opening of innovative new spaces that showcase our world-class collections to an increased number of special exhibitions that delight and engage visitors. In a recent major visitor survey participants reported 94 percent satisfaction with their ROM experience.

As the Renaissance ROM Campaign enters its final year, the stretch goal is to raise an additional $36 million by June 2009—which includes the $22.4 million private-sector goal and the $12 million expected from the Federal Government. The momentum generated by all those who continue to generously give their time, energy, creativity, and resources will propel the Renaissance ROM Campaign well past the $300 million mark. Be part of a winning team by helping us reach our goal. For information or to donate, call 416.586.5660.

Curator's Corner, our existing lecture series for Members 55+, also continues to be offered.

KEEPING YOU IN TOUCH

A New E-newsletter for Museum Members

ROM Members will soon be offered a new way to receive the latest updates on Museum programs, invitations, and news. Send your e-mail address to membership@rom.on.ca, and we'll sign you up for the new Members-only e-newsletter. This timely e-publication will keep you in the loop with the latest breaking news, ensuring that you never miss out on last-minute programs and events.

ON THE WEB

If you don't have an e-mail address, you can visit rom.on.ca to find out what's new and upcoming. The site is also an excellent tool for helping you plan your visit to the Museum.

MEMBERS GO TO THE HEAD OF THE LINE

Don't forget that Museum Members can now access Fast Track admission at the ROM. And, yes, that means skipping the admission line altogether. To enter the Museum directly, simply show your active membership card and a second piece of photo ID at the Museum access point.

IT'S NOT TOO EARLY TO THINK ABOUT CHRISTMAS GIFTS

A ROM Membership makes the perfect gift that gives all year long. Give the ROM this holiday season and save up to $20**

To wrap up your shopping today, contact Membership at rom.on.ca/members or call 416.586.5700.

** *Some restrictions apply*

DIAMONDS: THE STORIES BEHIND THE SPARKLE

With their exquisite brilliance, myriad shapes and colours, and monetary value, not to mention their timelessness, diamonds symbolize wealth, power, and majesty—and, of course, eternal love. Our fascination with them runs deep.

A new exhibition, *The Nature of Diamonds*, organized by the American Museum of Natural History and the ROM, running from October 25, 2008, to March 22, 2009, explores the natural and cultural history of one of the world's most precious gems. To complement the show, the ROM is offering a wide variety of programs that let you explore diamonds in greater detail.

The fall season kicks off with a Hollywood take on diamonds. The Tuesday-evening film series *Icons & Ice* screens three diamond-themed classics: *Gentlemen Prefer Blondes* with Marilyn Monroe (1953), *To Catch a Thief* with Cary Grant and Grace Kelly (1955), and *Diamonds Are Forever* with Sean Connery as 007 (1971). Introduced by film expert Anthony Harrison, each evening features a prominent guest speaker: Niki Kavakonis, a well-known Toronto designer with a passion for uncut Canadian diamonds; Reena Ahluwalia, an internationally acclaimed Canadian jewellery designer whose work recently appeared on a Belgian postage stamp; and Dr. Kimberly Tait, associate curator of Mineralogy in the ROM's Department of Natural History.

"Diamonds play an eclectic role in Hollywood films," says Anthony Harrison. "From musical comedy to action/adventure, diamonds are never far from the spotlight, and have been featured in many iconic moments in film history."

Harrison's three-week program begins November 4, 2008. Register now.

Among fall 2008's many diamond-themed events: Alexandra Watson Mendis delivers a four-week course, *Introduction to Fine Gemstones & Pearls* on Saturday afternoons beginning November 8; and the ROM's Katherine Dunnell presents *Diamonds,* part of the popular Lunch 'n' Learn series on Tuesdays and Sundays beginning November 18. Programs on the science, buying, marketing, and ethics of diamonds will also be offered.

Belgian postage stamp featuring a necklace by Canadian jewellery designer Reena Ahluwalia.

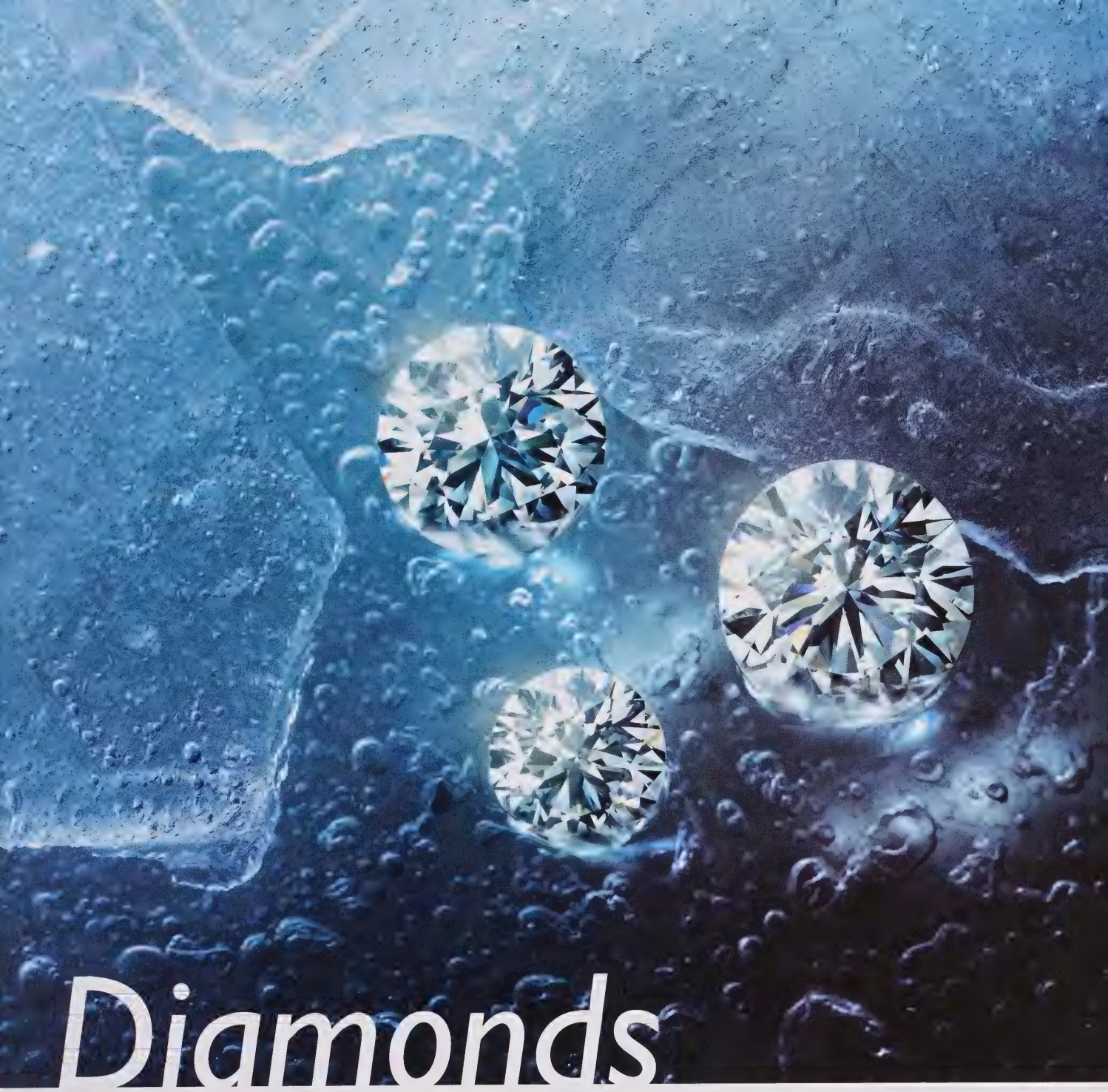
DON'T MISS OUT!

To register for the ROM's diamond programs go to rom.on.ca/programs or call 416.586.5871 for your free copy of the ROM's events and programs guide.

MEMBERS

Don't forget that ROM Members receive a discount on all programs.

Ring featuring an uncut Canadian diamond was created by Toronto designer Niki Kavakonis.



De Beers Canada is proud to be the presenting sponsor of an exhibition featuring nature's finest achievement, the diamond. Renowned for its strength and beauty, the diamond has been revered by ancient civilizations to present day, inspiring countless generations to create jewellery and ceremonial objects to live up to its radiance.

Come see some of the world's most striking pieces on display for a limited engagement at the Royal Ontario Museum, starting October 25, 2008.

Diamonds and diamond jewellery shown are subject to change
For exhibit details, visit www.rom.on.ca
Diamonds is organized by the American Museum of Natural History in collaboration with the Royal Ontario Museum, The Field Museum, and the Houston Museum of Natural Science

Diamonds
Presented by:

DE BEERS
CANADA

A TASTE OF BOLLYWOOD FROM THE ROM MUSEUM STORE

This fall, the ROM Museum Store takes a cue from the lush colours screened by Toronto filmmaker Srinivas Krishna—directly on the Michael Lee-Chin Crystal—during the 2008 Toronto International Film Festival. The warm palette and unique colour combinations of the new Darjeeling Collection tablewares make for perfect autumn table settings. Inspired by the intricate patterns of Indian textiles, these refined porcelains are traditional but with a modern global twist. Faux-gold accents add a glimmer of elegance to salad plates, trumpet-shaped mugs, and espresso sets.

Pair these settings with coordinating Darjeeling glassware to notch up the glam factor. The bold colours are reminiscent of fine gemstones, but these handmade beauties are truly green—fashioned from recycled glass.

BRIAN BOYLE, ROM

BUNK DOWN WITH A DINOSAUR

Back-to-school time doesn't have to be blah. This fall at the ROM, there's an engaging array of programs that will have kids looking forward to learning.

On October 25 and 26, the Museum presents a special Halloween Weekend. Kids can test-drive their costumes while celebrating the spooky holiday with ghost stories and an up close and personal visit with a dinosaur. They can brave the Bat Cave, interact with some live but not-so-scary snakes and spiders, and make their own creepy crawly companions to take home.

Then on November 7, the Museum kicks off the ultimate sleepover. Each month, kids can bring their families and bunk down at the ROM. The giant pajama party gives children a chance to have fun with other Museum-loving kids while enjoying a backstage ROM pass, with exclusive after-hours tours and family activities. For details, go to rom.on.ca or call 416.586.5549.

DATTUPHOTO/1328020 ONTARIO INC

Paint a masterpiece. Build an empire. Explore the world.

ROMkids

Saturday Morning Club

Fall • Winter • Spring

Enjoy Eight Saturdays of fun-filled educational adventures in the Museum's fascinating galleries and learning labs. Fall, winter and spring sessions each feature a wide variety of exciting themes. Perfect for the curious and creative child!

Saturday Morning Club is generously supported by the Philip and Berthe Morton Foundation

416.586.5797 | www.rom.on.ca
Bloor St. W. at Avenue Rd.
Museum subway stop

ROM Royal Ontario Museum

The ROM is an agency of the Government of Ontario

ROM Explorers' Club

A really **cool** **club** just for kids!

Special Passports • Fun Newsletters • Great Events

For children 5 to 10 years of age

Available to ROM Members only • $15 per child per year

EXPLORERS

ROM Royal Ontario Museum | ROMkids

INSPIRED CUISINE AUTUMN MENUS SERVE UP EXOTIC AND HEARTY FARE

BRIAN BOYLE, ROM

Inspired by the ROM's screening of South Asian films as part of the Toronto International Film Festival, c5 Restaurant Lounge offers an exotic bar menu of South Asian-inspired small plates created by chef de cuisine Ted Corrado. Signature cocktails are specially mixed to marry well with the menu.

Downstairs, Corrado brings his love of local, artisanal, and organic foods to Food Studio with a new, family-friendly fall menu that pays homage to the exhibitions *Wedgwood: Artistry and Innovation* and *Mysteries of Ancient Ukraine.*

For *Wedgwood*, Corrado and his culinary team celebrate British pub food with hearty fare: fish and chips, bangers and mash, and shepherd's pie, topped off with scones and Devon cream. Ukrainian homestyle favourites reflect the *Ancient Ukraine* theme, with such savoury dishes as perogies, borscht, cabbage rolls, and potato pancakes.

New Hours for c5
Lunch Tuesday to Sunday
11:30 am to 2:30 pm
Tea Thursday to Saturday
3 to 5 pm
Dinner Thursday to Saturday
5:30 to 10 pm

CONTACT INFORMATION

Royal Ontario Museum
100 Queen's Park
Toronto, Ontario M5S 2C6
Web site: www.rom.on.ca
E-mail: info@rom.on.ca

HOURS

- Saturday through Thursday 10 am to 5:30 pm
- Friday 10 am to 9:30 pm
- Closed Christmas Day and New Year's Day

ADMISSION PRICES

- ROM Members: FREE*
- Adults: $22
- Students and seniors with ID: $19
- Children (4 to 14 years): $15
- Infants 3 and under: FREE
- Half-Price Friday Night: Adults $11; students /seniors $9.50; children $7.50

*All adult Members must present a valid membership card and ID.

MUSEUM MEMBERSHIP

- Individual $90 /1 year, $160 /2 years
- Family/Dual $139/1 year, $250 /2 years
- Non-resident $95 /1 year, $170 /2 years
- Student $50
- Explorers $15 (in addition to ROM Membership)
- Curators' Circle $175
- Museum Circle $300
- Director's Circle $600
- Young Patrons' Circle Single $600/Dual $1,000
- Royal Patrons' Circle $1,500+

TELEPHONE NUMBERS

- Membership Services: 416.586.5700
- Switchboard: 416.586.8000
- Bell Relay Service: 711
- School Groups: 416.586.5801
- Museum Volunteers: 416.586.5513
- ROM Museum Store: 416.586.5766
- c5 Members Line: 416.586.8095
- Donations: 416.586.5660

ATTENTION MEMBERS

Your privacy is important to us. The Royal Ontario Museum (ROM) and ROM Governors (the ROM's charitable foundation) share a special relationship and you may receive additional information from each. If you do not wish to receive it, contact membership@rom.on.ca or call 416.586.5700.

Occasionally, we make our list of supporters available to other carefully screened organizations and selected groups that may be of interest to you. By allowing us to exchange your name, you are helping us support the ROM's education and research mandates. If you prefer not to have your name exchanged, contact us at the above listed e-mail address or phone number. The ROM and the ROM Governors do not sell their membership or donor lists to any third parties.

Should you prefer not to be contacted by our telemarketing office, please contact us at the above listed e-mail address or phone number.

Fish Frontiersman: Exploring fish evolution in South and Central America

TOMAS HRBEK AND STUART WILLIS

Early in 2008, he travelled by dugout canoe along the remote rivers of Guyana, at times forced to push the boat through rapids to reach his destination. In 2007, he hiked four hours into the jungles of Chiapas, Mexico, to a tiny unknown lagoon. But he's no tourist seeking adventure. Hernán Lopez-Fernández is a curator of freshwater fishes at the ROM, and for him, traversing wild and remote lands is all in a day's fieldwork.

Even before joining the ROM in February, Lopez-Fernández had been studying the fish fauna of South and Central America, which at an estimated 6,000 species is the most diverse in the world. He has visited Brazil, the US, and West Africa, as well as his native Venezuela seeking his target group of fish, the cichlids—popular aquarium fish that resemble sunfish. Catching them with nets, hooks and lines, or even purchasing them from local markets, he is expanding the ROM's collection of neotropical fish. Though diverse, the group of some 600 South and Central American cichlid species is also little known. From his Guyana trip alone, 25 of the 31 species collected were previously unknown to science.

Lopez-Fernández ultimately aims to discover how such diversity came about, and to understand the natural mechanisms that drive it. But large theories begin with unglamourous documentation: the describing and naming of each species. "This sounds like an old-fashioned thing that museum people do," says the Texas A&M graduate. "But without knowing what's what, you can't do the systematics work that can give us insight into how the species are related." Good taxonomy is also essential to conservation work.

Determining where each species should be placed on the family, or phylogenetic, tree is done by examining characteristics of body structure and analyzing DNA. A tree can reveal when and where a species originated. Already, Lopez-Fernández has discovered that the cichlid family tree possesses many short branches, indicating that those species evolved rapidly. This appears to be tightly linked to environment. Three groups of cichlids, for example, none of them closely related, all use the strategy of ground sifting to capture their insect prey—meaning that the habit evolved three separate times. Much like Darwin's finches in the Galápagos, this rapid evolution seems to have been shaped by the species' interactions with their environments—a process called adaptive radiation.

The fish curator gig is ideal for a guy who was captivated by an aquarium his father brought home when he was 10 years old. Soon Lopez-Fernández had his own tank, and befriended the owners of a local fish shop, who teased him about buying guppies and other "beginner" fish rather than "real" ones. When he finally plunked down the money for a pair of "real" Texas cichlids—which soon laid eggs and began raising young—he was hooked, and has been studying cichlids, formally and informally, ever since.

There are still years of work ahead to fully understand this group of fish and the forces shaping their evolution. To that end, Lopez-Fernández has already scheduled his next remote adventure, this time on a National Geographic-sponsored trip to the Xingu River in the Amazon.

EXPLORATI

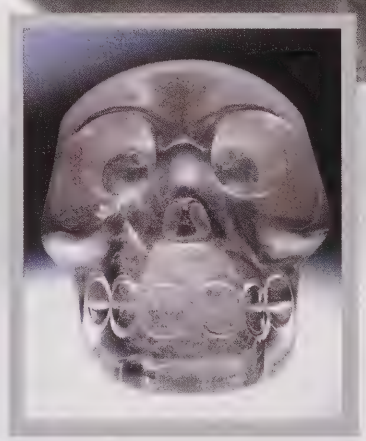
The Real Deal? Or Just Skullduggery?

The British Museum has one, the Smithsonian has two, and the ROM has one. Crystal skulls can be found in some of the world's best museum collections. Variously attributed to the Maya, Aztec, or Mixtec cultures of ancient Meso-America, crystal skulls vary from our plum-sized one shown here to a larger-than-life-size skull at the Smithsonian that weighs a whopping 31 pounds (14 kg). First acquired by museums as early as 1856, the skulls evoke the ancient blood sacrifices so important to these cultures. The ROM's skull was worn as a pendant. Perhaps you can imagine it swaying on the chest of a priest as he raised an offering to the gods. To stare into the eye sockets of the skull is to stare into the very heart of ancient Meso-American culture. Or is it?

Growing evidence suggests that many of these crystal skulls are fakes. None of the ones in museum collections were unearthed during excavations, and most look quite different from the skull depictions common in ancient Meso-American art. Even more damning are the results of recent detailed scientific analyses on skulls at the British Museum, the Smithsonian, and the Musée du quai Branly, using such techniques as electron microscopy and X-ray crystallography. In each case, tests demonstrated that the skull was made with modern rotary tools and harsh abrasives. All were forgeries. Does this mean the ROM's crystal skull is a dud?

Not necessarily. All the skulls proven to be fakes were life-size or larger. The Aztecs and other Meso-American cultures carved many small objects out of rock crystal, and some well-respected archaeologists think it likely that ancient crystal skulls existed. Purchased in Mexico City in 1972 by a vacationing Canadian couple, the ROM's crystal skull was authenticated by specialists in Mexico, and then declared genuine by former ROM curator and Maya archaeologist David Pendergast. The Museum accepted the crystal skull as a donation in 2007. But is it real? We have yet to find out.

—Justin Jennings



BRIAN BOYLE, ROM / 2007.22.1

ONS

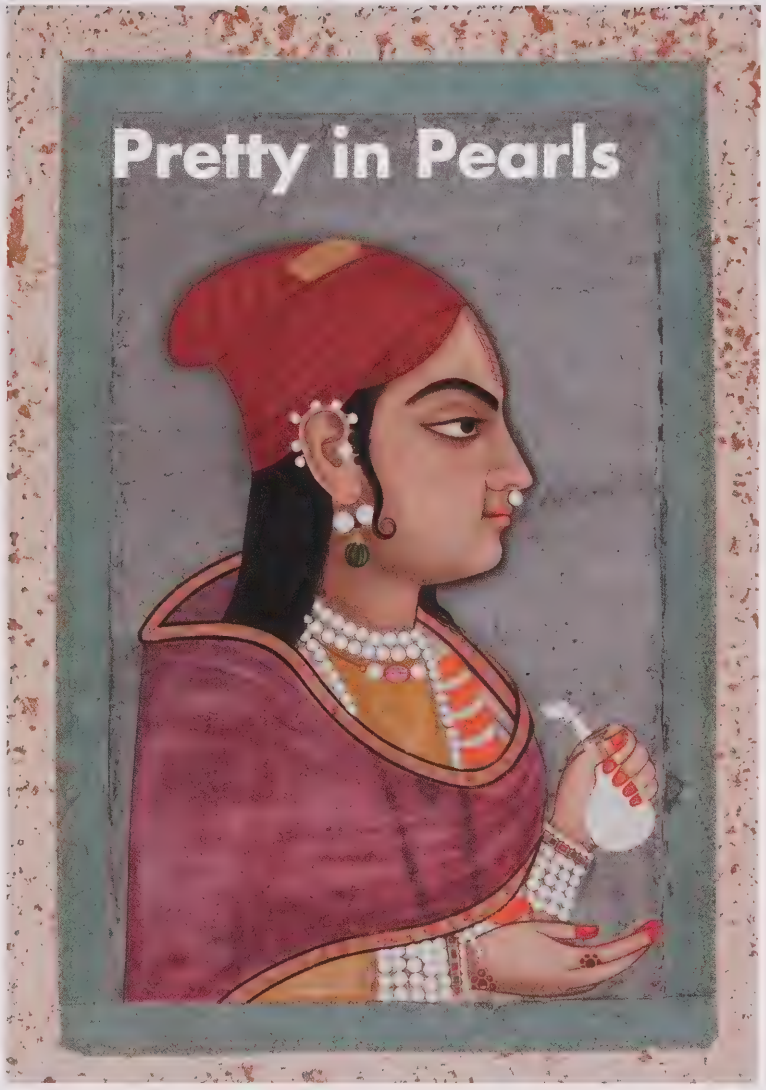
Benchmark of Beauty

This 20-carat Colombian emerald was discovered in an antique shop in downtown Toronto by ROM curator emeritus Dr. Robert Gait. Set in diamond-encrusted platinum, the ring was a family heirloom made prior to the 1920s and put on consignment with the shop. When Dr. Gait spotted the ring, he was elated at the rare find of such a large flawless stone presumably extracted from Colombia's famed Muzo mine. He immediately alerted the ROM. The Museum purchased the ring with funds from both the Bequest of Hertha Haist and the Louise Hawley Stone Charitable Trust.

With any coloured gemstones, there are benchmarks of hue against which all gems are compared. For emeralds, the intense blue-green of the Colombian gems—such as this square-cut one—set the highest standard.

—Kim Tait

M52760. IN MEMORY OF DR. MAX HANS FROHBERG/BRIAN BOYLE, ROM



AN: 925.82.1 SIZE: 29.2 X 19.4 CM

Favourites of Northern India

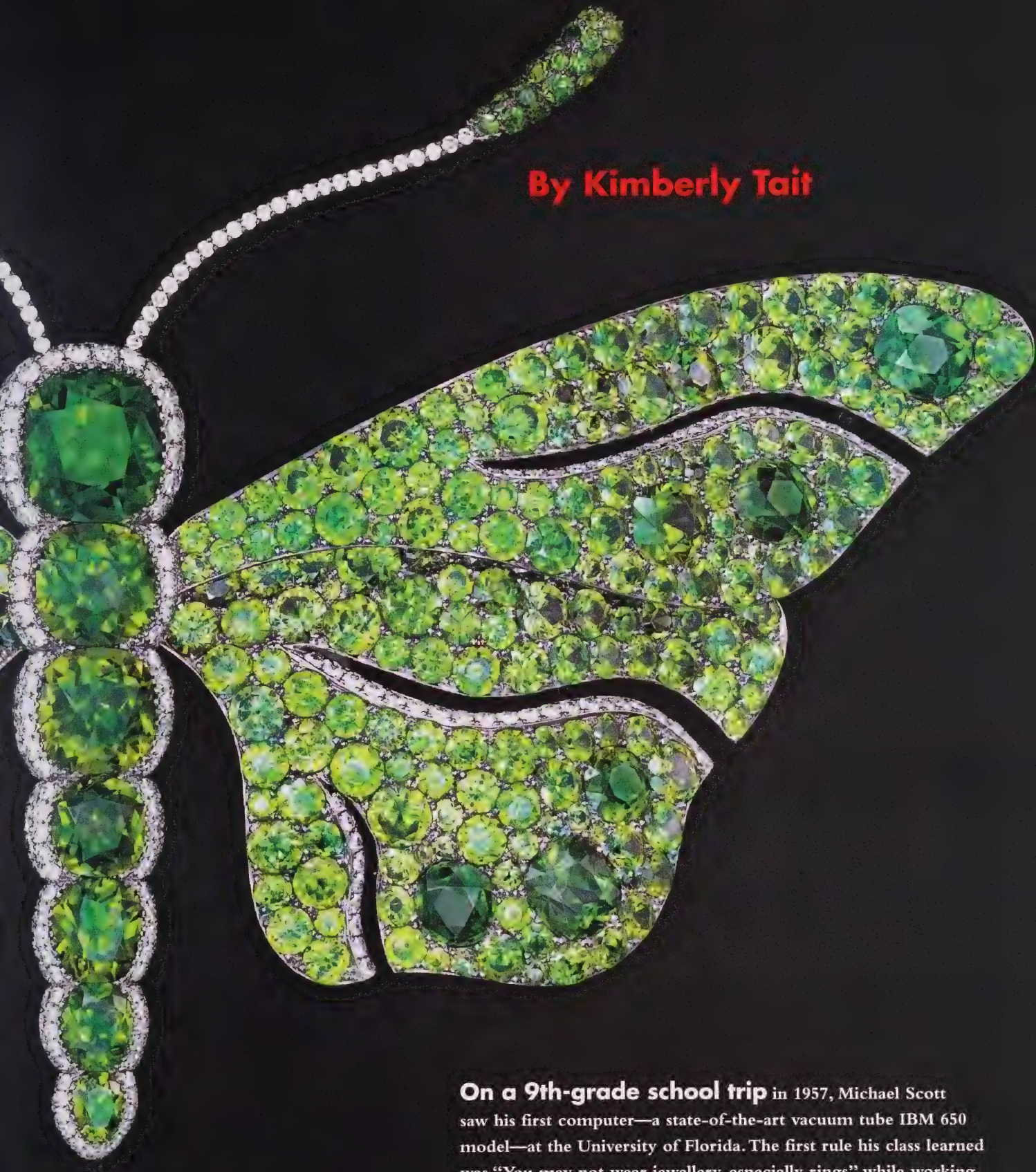
Painted by an unknown artist from Rajasthan, in northwestern India, this late-18th-century miniature watercolour portrays a beautiful noblewoman. One indication of her status is the rosewater sprinkler, or *gulabpash,* she holds. This type of perfume dispenser was used by Indian nobility to apply fresh scents throughout the day. Other signs of her high rank are her rich clothing and fine jewellery, including elaborate earrings, nose ring, necklaces, and bracelets made predominantly of pearls and set with a few rubies and emeralds. Comparing the size of the pearls with her eye, it's clear that the gems are immense. Of all the precious stones used in South Asian jewellery, pearls were used the most abundantly. A favourite with the North Indian nobility, both men and women, pearls were cherished for their size, purity, and luminosity. In 1611, William Hawkins, an English merchant and ship commander who traded with the Mughal Empire, described the treasury of Mughal emperor Jahangir, recording no less than 300 kilograms or 1.5 million carats of pearls.

—Deepali Dewan

How one man's passion for gems led to a collection that rivals those of royal families.

Photos by Erica and Harold van Pelt Photography

Romancing the



By Kimberly Tait

Stones

On a 9th-grade school trip in 1957, Michael Scott saw his first computer—a state-of-the-art vacuum tube IBM 650 model—at the University of Florida. The first rule his class learned was "You may not wear jewellery, especially rings" while working with computers, because rings could dent the edges of the punch cards used at that time and jam the machine. This rule stuck with Scott, who went on to become the first president of Apple computers. Throughout his career he never wore a ring. It wasn't until many years later, when punch cards were a thing of the past and he was retired, that Scott finally decided to buy himself a nice one.

Buying his first ring sparked Scott's passion for the world of gems, where science, business, and beauty converge.

Demantoid Butterfly Brooch

Opening spread: Made from a matched set of 330 demantoid garnets from Urals, Russia, and 472 diamonds. The unique titanium mounting makes the brooch lightweight at just 28 grams.

Scott's Ring

Top: The first tsavorite ring in Michael Scott's collection—bearing the 7.81 carat genuine tsavorite replacement stone.

Ice Cube

Bottom: A cubic natural diamond crystal weighing 156 carats. Ghana, West Africa.

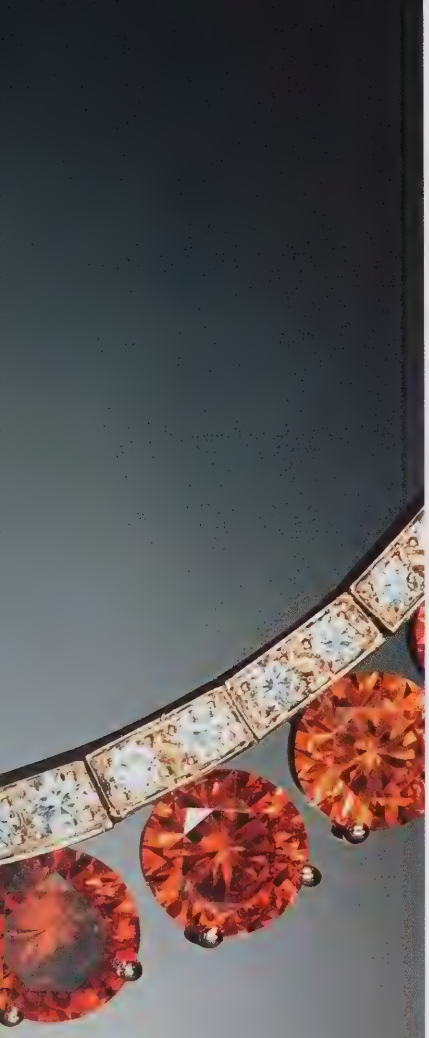
He settled on the idea of a green stone, but emeralds—the most popular of green gems—are expensive in the size he wanted and prone to cracking if struck. Instead he chose a tsavorite garnet, and asked a local jeweller to ship in three stones for him to examine. Before making the purchase, he asked for a third-party certification to confirm that what he was buying was indeed a tsavorite. It turned out that the stone was yttrium aluminum garnet (YAG), a synthetic mineral worth a tiny fraction of the value of the stone he intended to purchase. The experience sparked Scott's passion for the world of gems, where science, business, and beauty converge.

Today, as a private gem collector, Scott has few rivals other than royal families. I first met him this spring while preparing to curate an exhibition of his extraordinary collection of gemstones, jewellery, and gem sculptures (scheduled to go on display at the ROM in December 2008). What has struck me as I've gotten to know him over the past several months, aside from the sheer quality of the gems in his collection, is his passion for these stones and his evolution as a collector. His approach has been ambitious, but equally systematic and far reaching.

He began with a piece of "rough stone" not yet cut into a gem, to show how it would typically look when taken out of the ground. His original plan was to collect cut stones in the dominant colours they are known for—blue tanzanites, for example, or red rubies. But once he had amassed a considerable collection, he broadened his search to include the whole spectrum of colours for each stone. He was intrigued to find that—aside from diamonds—the colourless version of any stone tends to be the hardest to acquire, yet the least valuable.

The ROM exhibition of Michael Scott's collection, called *Light and Stone,* will feature among other things, a range of his emeralds from around the world, such as one from the famous Muzo mine in Columbia. As well, a display of gemstone giants showcases beryls, tourmalines, and spodumenes weighing in at 113 to more than 300 carats.

Aside from that first tsavorite ring, which he did eventually have made, when Scott started acquiring gemstones, he had no intention of collecting jewellery. But before long, he discovered that some of the best gems were to be found in bracelets and necklaces. So, he set out to collect a series of pieces—one item of jewellery representing every two decades over the past 200 years to show the progression of styles. Initially, he wanted to include all types of stones—except diamonds. For the price of a diamond, he thought, he would rather purchase a larger coloured stone, which interested him more. But he did end up buying



Ramona Orange

Left: This spessartine garnet necklace is made from 63 colour-matched garnets weighing 165 carats and 11 carats of diamonds.

Garnets

Above: A sample range of coloured garnets, which come in almost every shade—except blue.

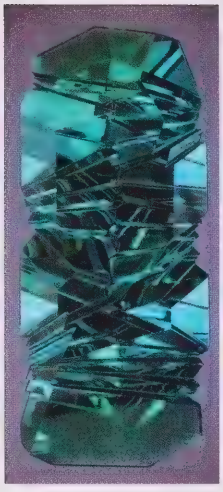
some diamonds, which he chose for their colour or rarity of form, such as a 156-carat diamond described as an "ice cube" because of its shape and size.

Recently Scott commissioned several artists to design jewellery pieces, or "picture frames" as he calls them, from some of his most important loose stones. One stone, the Queen of Kilimanjaro, is thought to be the world's largest faceted tanzanite crystal. Now mounted in a white-gold tiara with 803 garnets and 913 diamonds, it is one of the show's highlights. Another dazzling stone is an 83-carat cabochon emerald known as the Treasure of Gachala. Originating from Coscuez, Colombia, the stone has been set in a bracelet of diamond and palygorskite—an opal-like mineral from Mexico. And then there's the Ramona Orange necklace, which consists of 63 colour-matched spessartine garnets, with 11 carats of diamonds that set off the garnets' intense orange. One of the most spectacular pieces, which Scott acquired just recently, is a hefty gold man's cuff wrought from over a kilogram (more than 2 pounds) of gold. Never seen by the public, it features a 233-carat blue Sri Lankan cabochon star sapphire set with more than 1,000 carats of blue moonstone cabochons.

Many other stunning pieces will be on view. One case will display a series of gem-encrusted butterflies in myriad colours and styles, from an antique diamond-and-ruby pin to a demantoid garnet butterfly with 330 garnets and 472 diamonds mounted in a unique titanium setting (so the brooch wouldn't weigh down its wearer).

Faceted gemstones and gems set into jewellery are surely works of art, but as Scott's appreciation for gems deepened, he developed an interest in precious stones that are themselves carved into artworks. In that vein he has acquired numerous carvings and sculptures from the renowned gem-carving villages of Idar-Oberstein in southwestern Germany. While no one knows how long the craft tradition has persisted in these twin German villages, some believe it may date back to Roman times. One of the first and most striking pieces visitors will see upon entering the *Light and Stone* exhibition is *Repose*, an Idar-Oberstein quartz carving of a young man on an obsidian base with 18-karat gold cloth draped over his lap.

Among Scott's fantastic gem artworks are a group of pieces by Bernd Munsteiner. An extremely accomplished third-generation contemporary gem sculptor from Germany, Munsteiner, inventor of the Fantasy Cut, has redefined how precious stones can be faceted to best interact with light—in sculptures as small as a few carats on up to giants weighing more than 90 kilograms (200 pounds).



Dynamic Symmetry

Top: This silver sculpture features a Brazilian gemstone, the world's largest rose quartz star. 5,500 carats. John Marshall. 1990. Seattle, USA.

Reflections & Perspectives I: Envy

Bottom: The sculpture features "chrome" bluish-green verdelite tourmaline. Fantasy cut. 114 carats. Bernd Munsteiner. Idar-Oberstein, Germany. (5 x 2 x 1.5 cm)

No one knows how long the craft of gem carving has persisted in Idar-Oberstein, Germany, but some believe it may date back to Roman times.

Magnolia Flower

Left: Ametrine quartz—which has yellow and purple in the same crystal—with gold. 1,250 carats. Gunter Petry, 1992. Idar-Oberstein, Germany.

Agate Starfish

Above: The deep red starfish is carved from a single piece of agate material. 9,306 carats. Gerd Dreher, 1995. Idar-Oberstein, Germany.

A Question of Blue-Green

Michael Scott's gem collection is the only one in the world with enough blue-green, copper-bearing elbaite tourmaline, known in the gem trade as Paraíba tourmaline, to fill an entire display case. And we plan to do just that with his collection when it arrives at the ROM for exhibition in December. Discovered in the 1980s, Paraíba tourmalines came from a region in northeastern Brazil, Mina da Batalha, in Paraíba State. Similar tourmaline was later found in the adjacent state of Rio Grande do Norte, but until just a few years ago Brazil remained the only supplier of this stone to the world market. This makes Paraíba tourmaline extremely rare and by far the most valuable of the tourmalines.

In the past few years, though, copper-bearing tourmaline from Nigeria and Mozambique has come onto the market. In the gem trade, stones are typically priced according to appearance. But there is considerable controversy over whether the stones from Brazil, Mozambique, and Nigeria should all be referred to as Paraíba tourmalines—because they are all neon blue in colour and have similar chemistry—or just those from Paraíba State. The ROM display will show neon blue tourmalines from both Mozambique and Brazil in a range of sizes and varying degrees of blue to blue-green. A highlight of the case, the Paraíba parrot brooch, boasts a 7-carat faceted Brazilian Paraíba crystal, with "feathers" composed of diamonds and 119 tourmalines, totalling 31 carats in weight.

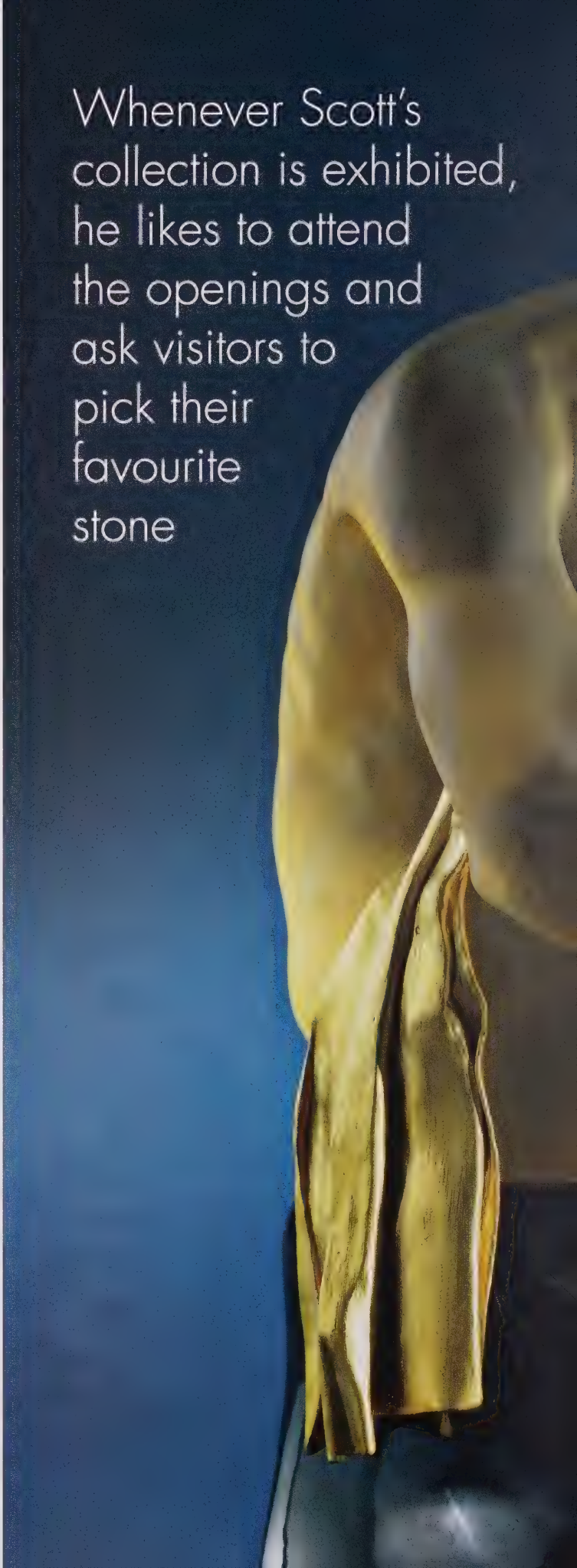
Repose

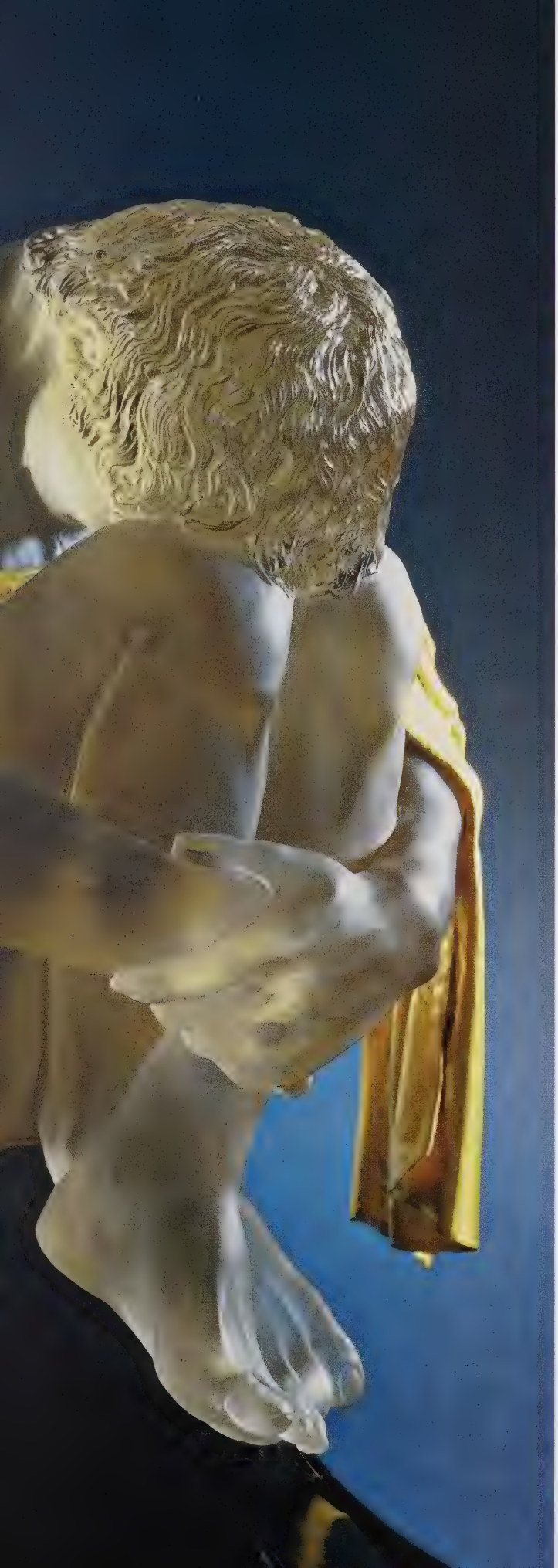
Right: Nude male youth in quartz on an obsidian base with 18-karat gold. 9,000 carats total weight. Gunter Petry. 1991. Idar-Oberstein, Germany.

Blue Paraíba Tourmaline

Above left: Rough stone. 104.35-carat crystal. Paraíba Mine, Brazil.

Whenever Scott's collection is exhibited, he likes to attend the openings and ask visitors to pick their favourite stone





Scott also owns several pieces by John Marshall. He first met the Seattle-based contemporary artist and silversmith at the Seattle Opera in 1987. A fan of composer Wagner, Scott was drawn to the opera's presentation of Wagner dramas one fortuitous evening. In the opera house's General Directors Room, a couple of silver pieces from a local artist were on display. Scott asked the only other person in the room if he knew who had made them. He was face to face with Marshall himself. Scott lost no time in arranging to buy one of the works: *Growth Cycle*, a 1989 piece in sterling silver on an acrylic base. He didn't have a cheque book with him, but suggested that the head of the opera association could vouch for him since he was a regular patron.

A few years later, he bought a 5,500-carat quartz sphere that reminded him of how important lighting and positioning of a stone is in showing off its beauty. He decided a base would show off the sphere to better advantage, and contacted Marshall to discuss what type of stand would work with his crystal. Marshall told him that silver is an ideal neutral background since gold can compete with coloured stones. He wanted to ensure that using his artistic eye he could "wed' the stone with a designed base without overpowering the gem. The original globe and its new base worked so well together that over the years Scott went on to commission a total of 20 pieces from Marshall. Scott would provide a cut stone that required a base of silver or mokume-gane—a traditional Japanese style of laminating combined metals, such as silver and gold, or silver and palladium. John Marshall's merging of silver and gemstones into large sculptures is believed to be the first work of its kind. The ROM will be showing four of Marshall's pieces.

Having had a hand in encouraging the creation of such high-calibre original pieces, Michael Scott is no ordinary collector—his passion for gemstones is evident. Whenever his collection is exhibited, he likes to attend the openings and ask visitors to pick their favourite coloured stone. No one ever chooses just one, he says. They will usually say that one is their favourite, but that another is, too. The catch, he adds, is to push them, at that moment, in their current mood, to decide on their absolute favourite. It nudges them to pay more attention to the details of the stones—and to delight as he does in their beauty. When the exhibition comes to the ROM's Gallery of Gems and Gold in the Teck Cominco Suite of Earth Sciences Galleries in December, you, too, will have the chance to pick your favourite. ROM

Fine jewellery in a museum's Earth Sciences collection? Granted, that might be a little unexpected. In the ROM's early days, Earth Sciences staff were focused on minerals. It wasn't until 1929, with the donation of the Errington diamond, that they turned their attention to building a gem collection. Until then, the Museum had displayed only precious stones, ones that illustrated what could be found in the bazaars of India. We still have those gemstones, but they are a far cry from the fine jewellery in the collection today.

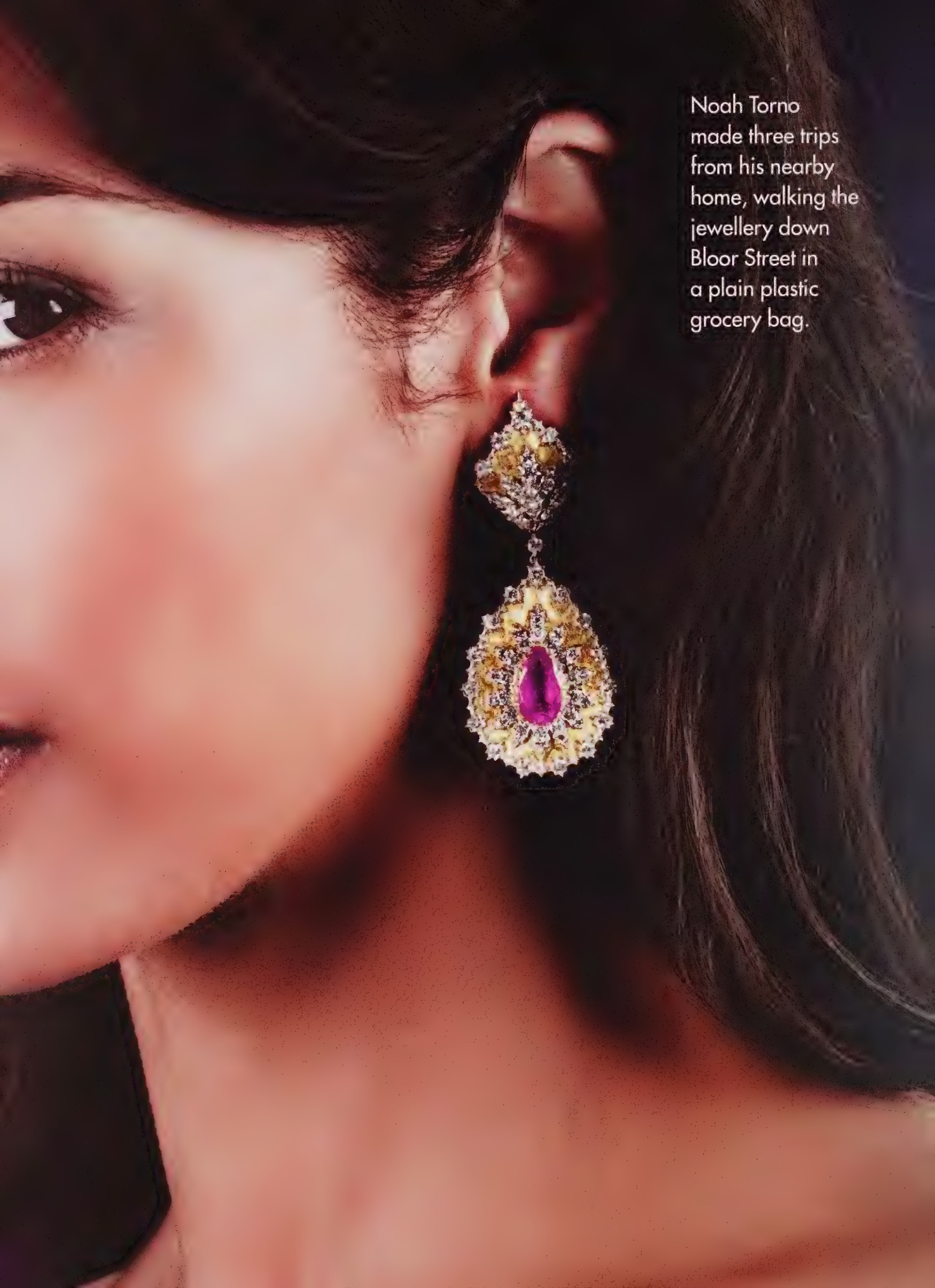
After 1956, although the department still had no set stones, the gem collection got another push. That was the year the ROM's Dr. Vic Meen was offered a large faceted topaz of such size and magnificent blue colour that he resolved to enlarge the collection substantially. Purchasing many notable gems, he travelled to Burma and Sri Lanka specifically to have them cut to order. Still, he had yet to begin collecting set gemstones or jewellery.

Jewels in the

In the '90s, donors upped the wow factor in the ROM's Earth Sciences collection with jewels of sheer beauty.

By Katherine M. Dunnell

Crown



Noah Torno made three trips from his nearby home, walking the jewellery down Bloor Street in a plain plastic grocery bag.

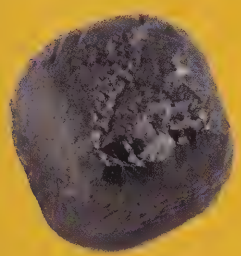
© BETTMANN / CORBIS

1920

In 1920, actor Douglas Fairbanks Sr. gave America's Sweetheart, Mary Pickford, the 182-carat Star of Bombay, a blue star sapphire from Sri Lanka, as a wedding gift.

1929

The Errington diamond is donated to the ROM by Joseph Errington.



Main Images

Photography: Brian Boyle, ROM
Model: Shani F. (B&M Models)
Makeup and Hair: Danny Morrow for Judy Inc.
Styling: Keira Enneson for Peter Enneson Design Inc.
Retouching: David Hou
Furniture: Nienkämper Furniture

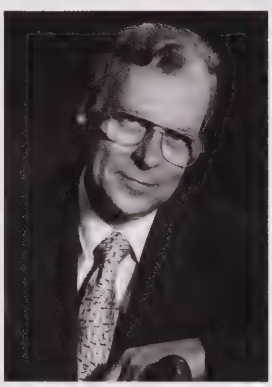
Faceted and set gems are really cultural expressions of the earth's minerals. They have been cut in various ways over time, as new styles come into vogue, and across cultures, which have distinct ideals. In India, for example, diamonds were traditionally cut to highlight their clarity, using very little faceting; whereas in Europe more extensive faceting was desired to give the diamond added sparkle.

Such cultural nuances meant that jewellery tended to be scattered throughout various museum departments. It wasn't until the 1990s, during a time of extensive gem research in the department, that curators were prompted to gather the ROM's jewellery pieces into the Earth Sciences collection. Since then, thanks to many generous benefactors, the ROM's collection has continued to grow in size and importance, with many donations of gems, pearls, and jewellery.

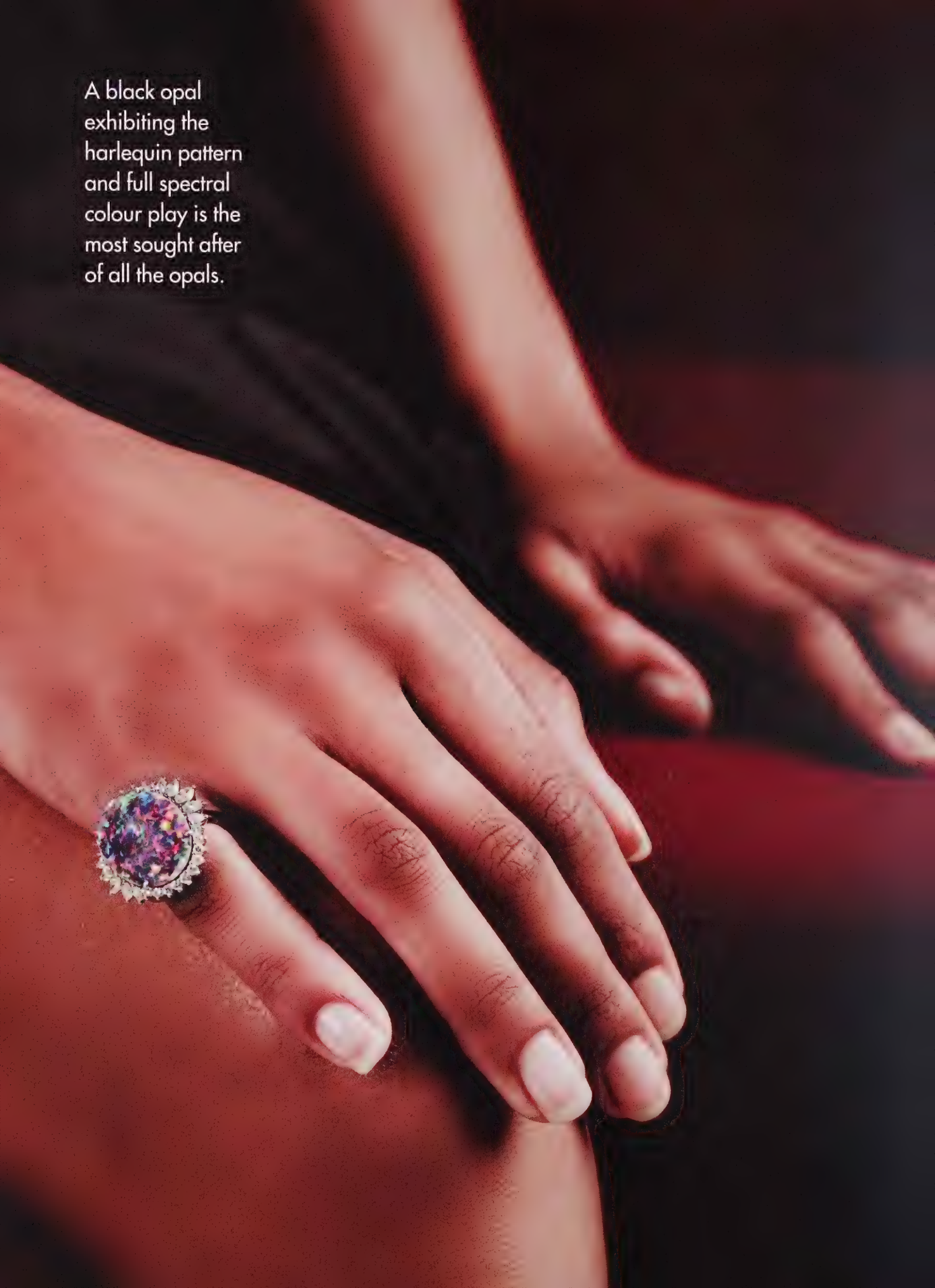
The Museum's most significant jewellery donation was from Rose and Noah Torno in the early- to mid-'90s. Noah Torno was a former head of the ROM's Board of Trustees and knew the Museum well, while Rose was a highly respected lawyer and founder of the Mount Sinai Hospital Auxiliary. Through Noah's relationship with the ROM, Rose came to feel that the Museum would be a good home for her treasured pieces and planned to donate most of them. Noah made three trips from his nearby home, walking the jewellery down Bloor Street in a plain plastic grocery bag. Safely inside the Museum, the boxes of Buccellati, Cartier, and Harry Winston emerged from the bag, to the thrill of the Earth Sciences staff. In total, the Tornos donated 44 items. Just a few of the stand-outs are a Harry Winston diamond necklace in platinum, a Buccellati diamond and yellow gold cuff bracelet, and a diamond ring from Cartier.

Mrs. Torno had a penchant for diamonds. The Harry Winston necklace—made in a fringe-style in the 1950s in New York—exhibits the characteristics of any good Winston piece: large, high-quality diamonds in tiny, invisible settings so the stones are not overpowered by the claws holding them in place. Mounted in platinum, the necklace is made from 21 pear-shaped diamonds weighing 13.50 carats, 37 baguette diamonds weighing 5.50 carats, and 98 round diamonds weighing 17.50 carats.

- Blue kite-shaped diamond M47144 Vincent Tovell
- Chrysoberyl ring M47143 Vincent Tovell



Vincent Massey Tovell



A black opal exhibiting the harlequin pattern and full spectral colour play is the most sought after of all the opals.

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1950

Film diva Marlene Dietrich wore her own gem-encrusted jewellery in movies, including a ruby bracelet, which recently sold for $990,000 at Sotheby's, which she wore in the 1950 film *Stage Fright*.

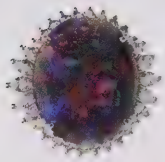
1956

ROM gemologist Dr. Vic Meen is offered a topaz whose size and magnificent blue colour prompted him to begin building the ROM's gem collection.

Piece after piece in Mrs. Torno's collection was made by Italian jewellery designer Buccellati. One of my personal favourites is the two-tone gold and diamond cuff bracelet by Gianmaria Buccellati, reminiscent of some Venetian lace-inspired designs his father, Mario, had created. In engraving the gold to look like fine lace, Gianmaria's attention to detail is the pinnacle in the art of jewellery making. And, as more and more jewellery is mass produced today, this piece has become particularly important to the Museum.

Of course Cartier also makes exquisite pieces, such as Mrs. Torno's platinum ring set with a superbly cut marquise diamond weighing 4.66 carats. Colour and clarity are two standard measures of the quality of a diamond. As well as the value imparted by its cut and large carat weight, her diamond is at the top end of the two other scales used to measure diamond quality: it is rated E for whiteness on a colour scale ranging from D down to J; and ranks VVS-2 (very very small inclusions) in clarity, just one step below IF (internally flawless).

The Tornos' magnanimous donations did not go unnoticed. In fact, they inspired others to donate jewellery to the ROM. At almost the same time that Noah and Rose were donating their finery, Vincent Massey Tovell—who in 2003, received the Order of Canada for his six generations of broadcasting and the pivotal role he played in establishing the Canada Council for the Arts, the Canadian Conference of the Arts, and the National Theatre School—gave the ROM two fabulous rings. One, a platinum and blue diamond ring handmade by the Canadian jeweller Birks, features a kite-shaped 5.86-carat fancy blue diamond—the largest blue diamond in the ROM's collection—with 12 round and 2 baguette cut diamonds. The ring was donated in memory of Tovell's great aunt Lillian Massey Treble, the only daughter of Hart Massey and one of the ROM's earliest supporters: her ghost is said to haunt the old Massey mansion, now a downtown Toronto steak house. The other, a man's ring, is set with an alexandrite so massive at 13.35 carats that it's incredibly rare, the largest of its kind in the ROM's gem collection (see *Rotunda*, Spring, 2006). Only three places in the world produce alexandrite, a gem derived from the



- Opal and diamond ring
  M47968
  Beryl Ivey
- Yellow sapphire brooch
  M47970
  Beryl Ivey
- Tanzanite brooch
  M47969
  Beryl Ivey

Beryl Ivey

Buccellati's attention to detail in engraving this cuff bracelet to resemble fine lace is the pinnacle of artistry.

© SUNSET BOULEVARD / CORBIS

1964

Among the gifts Richard Burton gave his wife, Hollywood beauty Elizabeth Taylor, were the 69.52-carat pear-shaped Taylor-Burton diamond and a heart-shaped yellow diamond, originally a gift from Shah Jahan in 1621 to his favourite wife, Mumtaz Mahal, for whom he built the Taj Mahal.

1950s & 60s

Many of the pieces of exquisite jewellery that Rose and Noah Torno donated to the ROM were made and worn during the 1950s and 1960s, including a dazzling Harry Winston necklace made from 156 diamonds.

mineral chrysoberyl: the USSR, Sri Lanka, and Brazil. Tovell gave the ring in appreciation of his brother, Dr. Walter Tovell, upon his retirement from his duties as ROM director, a scholar and teacher of earth sciences, president of the Toronto Field Naturalists, and head of the ROM's Geology Department.

The late '90s proved to be a heyday of fabulous donations to the Museum. One such gift, a lovely diamond and turquoise necklace and earrings, came from the estate of the late Grace Martin Gooderham. She was a descendant of William Gooderham, a founder of the renowned Gooderham and Worts empire, which encompassed not only distilling and railways, but lake transportation, livestock yards, retailing, woollen mills, and banking. The necklace, more like a textile than a piece of jewellery, is made from some 375 turquoise cabochons set in a collar design with diamond groupings along the border. Turquoise can vary greatly in quality, with Iranian being the most sought after because of its lack of green coloration and minimal to no veining. The diamonds total 3.60 carats, with good colour. But what makes this necklace so exceptional is the way it's mounted: when worn around the neck, it moves like a scarf. The accompanying earrings are single turquoise cabochons each set with a diamond cluster weighing 10.50 carats. Intended to be displayed in the Museum's S. R. Perren Gem and Gold Room, the set was on view there until the gallery was taken down in 2002 in preparation for the new Renaissance ROM expansion. This remarkable necklace will be prominently exhibited in the ROM's new Gallery of Gems and Gold in December 2009.

The new millennium has also seen some exquisite donations. In 2000, Beryl Ivey, a long-time supporter of the ROM—who also received the Order of Canada in 2007 for her philanthropic works—gave the Museum three significant pieces. Two are brooches: the largest faceted tanzanite in our collection, mounted in yellow gold and a fabulous yellow sapphire one. The third is a dazzling ring with a black opal that exhibits the classic "harlequin" pattern, showing broad flashes of red, orange, green, blue, and violet. A black opal with

- Diamond and gold Buccellati cuff bracelet
  M47125
  Rose Torno
- Marquis cut diamond
  M47117
  Rose Torno
- Harry Winston diamond necklace
  M45215
  Rose Torno

What makes
this necklace so
exceptional is the
way it's mounted:
when worn around
the neck it moves
like a scarf.

© BETTMANN / CORBIS

2000s

As part of the Crown Jewels, Her Majesty Queen Elizabeth II owns numerous massive diamonds, including the Star of Africa, a pear-shaped diamond weighing 530.20 carats, and the Cullinan II, a 317.40-carat diamond that graces the Imperial State Crown of Great Britain.

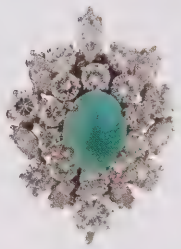
2001

Tiffany & Co. designer Paloma Picasso visited the ROM to donate her X and O necklace made from aquamarine, citrine, amethyst, and tourmaline cabochons set in yellow gold.

this pattern and full-spectral colour play is the most sought-after of all the opals. Birks made the ring, setting the fantastic stone in platinum and surrounding it with diamonds.

As well as private donors, the jewellery industry has contributed generously to the ROM's collection—especially Tiffany and Co., which donated two signature pieces. Each was created by a well-known Tiffany designer, one by Jean Schlumberger and the other by Paloma Picasso. The Schlumberger piece, which came to the ROM in 2000, was made to mark the millennium and is called the "fireworks" brooch. The French-born Schlumberger was one of only four jewellery designers at Tiffany's allowed to sign his pieces. He had a whimsical style and was patronized by everyone from the Hollywood elite to royalty. The second Tiffany and Co. piece—Paloma Picasso's signature X and O necklace, made of aquamarine, citrine, amethyst, and tourmaline cabochons set in yellow gold—came to the ROM a year later. To present the necklace, Picasso herself came to the ROM and made a brief speech. Mentioning that she is frequently asked why she designs such large, heavy pieces, given her small size, she explained that while she has her mother's fine features, she inherited her nose from her father, and the large jewellery plays off of it. The necklace is currently on display in the Samuel Hall ❦ Currelly Gallery.

Culturally, the ROM's jewellery collection offers a snapshot of rarified life in Canada. The late '50s and early '60s was a time when exceptional pieces were worn more frequently and at more formal occasions. Women still wore formal gowns to attend the opera or the symphony. But from the science perspective, the pieces embody the rarest minerals from particular geological settings and, in some cases, from localities that no longer produce these gemstones. The unique conditions required to produce transparent and deeply coloured minerals are part of what makes every one of the ROM's gems so special. In a single object, a gemstone represents the pinnacle of nature and culture. And within the ROM, a museum that houses both science and culture, the gem and jewellery collection finds a fitting niche. ROM



- "Fireworks" tanzanite and diamond brooch M47892 Tiffany & Co.
- Diamond and turquoise earrings M47380 Grace Martin Gooderham
- Turquoise necklet M47379 Grace Martin Gooderham

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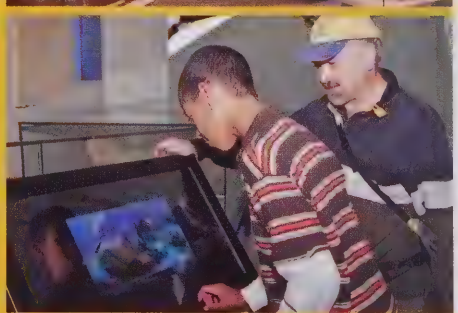


The cast skeleton of the huge pterosaur *Quetzalcoatlus northropi* in process.

The making of a pterosaur

Technicians use research and technology to build a cast skeleton from a few fossil bones. **By Peter May**

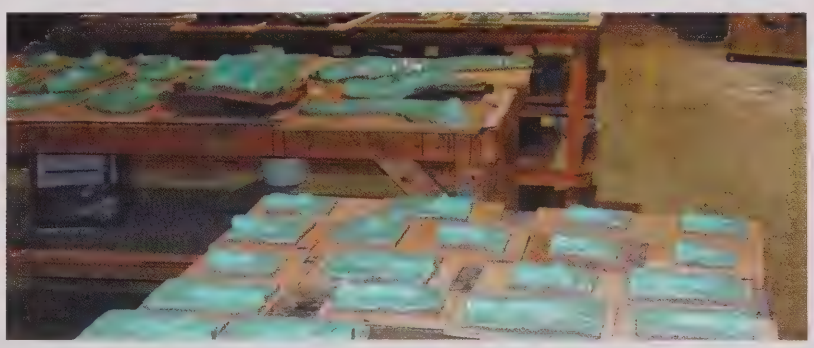
The pterosaur *Quetzalcoatlus northropi* is one of the largest flying reptiles ever to have taken to the skies. In 1971, the original partial skeleton—consisting only of the bones of one wing—was discovered at Big Bend National Park in Texas. Amazingly, paleontologists in Austin and technicians in Montana were able to accurately recreate the complete skeleton of this enormous creature, a cast of which now soars above the ROM's Hyacinth Gloria Chen Crystal Court.

Peter May from Research Casting International (RCI), an Ontario-based firm that also casts museum skeletons, explains how, with a few fossil bones, a spectacular skeleton like the one unveiled at the ROM in July is produced and mounted.

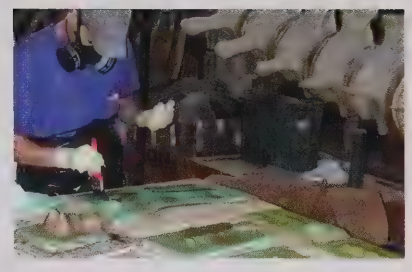
Sculpting and Modelling

Having just a few existing bones, technicians needed to recreate most of the skeleton from scratch. The fossil bones suggested what size the pterosaur needed to be. What enabled the technicians to create a full skeleton was using a number of similar, but smaller, *Quetzalcoatlus* skeletons as models for the missing elements, simply enlarging them to match the size of the one from Texas.

When fabricating a skeleton, the first task is to hand sculpt each bone in clay using modelling tools and calipers. Once technicians have accurately recreated the missing pieces, they make moulds of the clay elements using RTV silicone rubber—a two-part, catalyzed room temperature vulcanizing material. This high-quality soft rubber picks up



Step 1: Rubber moulds are made from "bones" modelled in clay.



Step 2: Fibreglass supports are created to ensure the rubber holds its shape.
Step 3: The moulds are used to make casts in polyester resin.

every detail of the cast to produce a precise replica. Technicians place a parting wall around the bones, which divides the mould into two or more sections. The more complex the part being moulded, the more sections are required. Then, they paint a fine initial coat of rubber over the bone and parting wall. To remove any air bubbles and drive the rubber onto the bone, they lightly spray it with compressed air. Once the first layer starts to cure, they apply four more, allowing each to cure in between. Next, they fit a fibreglass support jacket to form a hard shell that ensures the rubber holds its shape accurately.

Once the moulds are removed from the bones, the technicians use them to cast each element in polyester resin with a thin layer of fibreglass backing. These polyester pieces are the "bones" you see on display. A coloured gel coat is brushed onto the casts to produce a base that will be accurately hand painted to match the original fossil. Technicians then wet down the fibreglass cloth with polyester resin and tap it over the gel coat to remove air bubbles.

When the fibreglass has cured, they fit a metal armature to the cast's interior shape. The armature is affixed to the cast, and runs through the interior of all of the bones to support the structure when it's hung from the ceiling.

This skeleton of *Quetzalcoatlus* was actually developed 15 years ago. The original moulds have so far produced about eight casts, including the ROM's. At that time, technicians were still using traditional sculpting, modelling, and casting techniques. The fully assembled skeleton and armature weigh approximately the same as *Quetzalcoatlus* when the animal was alive—as little as 100 kilograms (220 pounds), slightly heavier than an adult sheep. Pterosaur bones were hollow and pneumatic (which means air flowed through them), so the animal would have been very light for its size.

Today, technicians would have turned to higher technology—they'd make digital scans of the fossils, save them as computer files, and download them to a 3D printer. Eventually, this relatively recent innovation will likely replace traditional moulding altogether.

Laying out the casts.
Technicians David and Kevin Krudwig with skull.

BRIAN BOYLE, ROM

The Pose

The ROM's mount shows *Quetzalcoatlus* swooping in for a landing above the Hyacinth Gloria Chen Crystal Court, its wings in a breaking pose that would bring it in for a smooth landing.

A great deal of scientific study has gone into how these large animals managed the skills of takeoff and landing. *Quetzalcoatlus* was as big as a small airplane, and probably depended on steady gusts of wind to take off. Recent research by paleontologists and aeronautical engineers has shed new light on pterosaurs, showing they were capable of flight as complex as that of modern birds; studies on the giant *Quetzalcoatlus* indicate it was more suited for gliding than aerobatic manoeuvres. Research Casting International used this analysis to pose the animal in a gliding rather than flapping posture, bending the hind limbs as they would have been positioned in anticipation of landing, with the wings raised, being used as brakes.

Mounting

Scaffolding allowed the RCI team to reach the high anchor points from which we suspended cables to support *Quetzalcoatlus*. Each joint of the skeleton has a keyway machined into it and a bolt that enables the sections to be easily assembled—crucial when installing at great heights. We partially assembled the skeleton, the body and legs first, and lifted it out onto the scaffolding platform, where we loosely attached it to the cables. Then we added the other skeletal parts and the first wing section. Next we adjusted the skeleton to the specified pose, lifting the skull and neck and tightening the cables to have the pterosaur banking at about 30 degrees. Once we were satisfied with the positioning, we attached the remaining wing sections.

When we removed the scaffolding, the metal armature remained to support *Quetzalcoatlus*. Substantial in strength, the armature is bolted at three anchor points to secure the skeleton in its set position, taking pride of place soaring just outside the James and Louise Temerty Galleries of the Age of Dinosaurs.

Peter May is president of Research Casting International.

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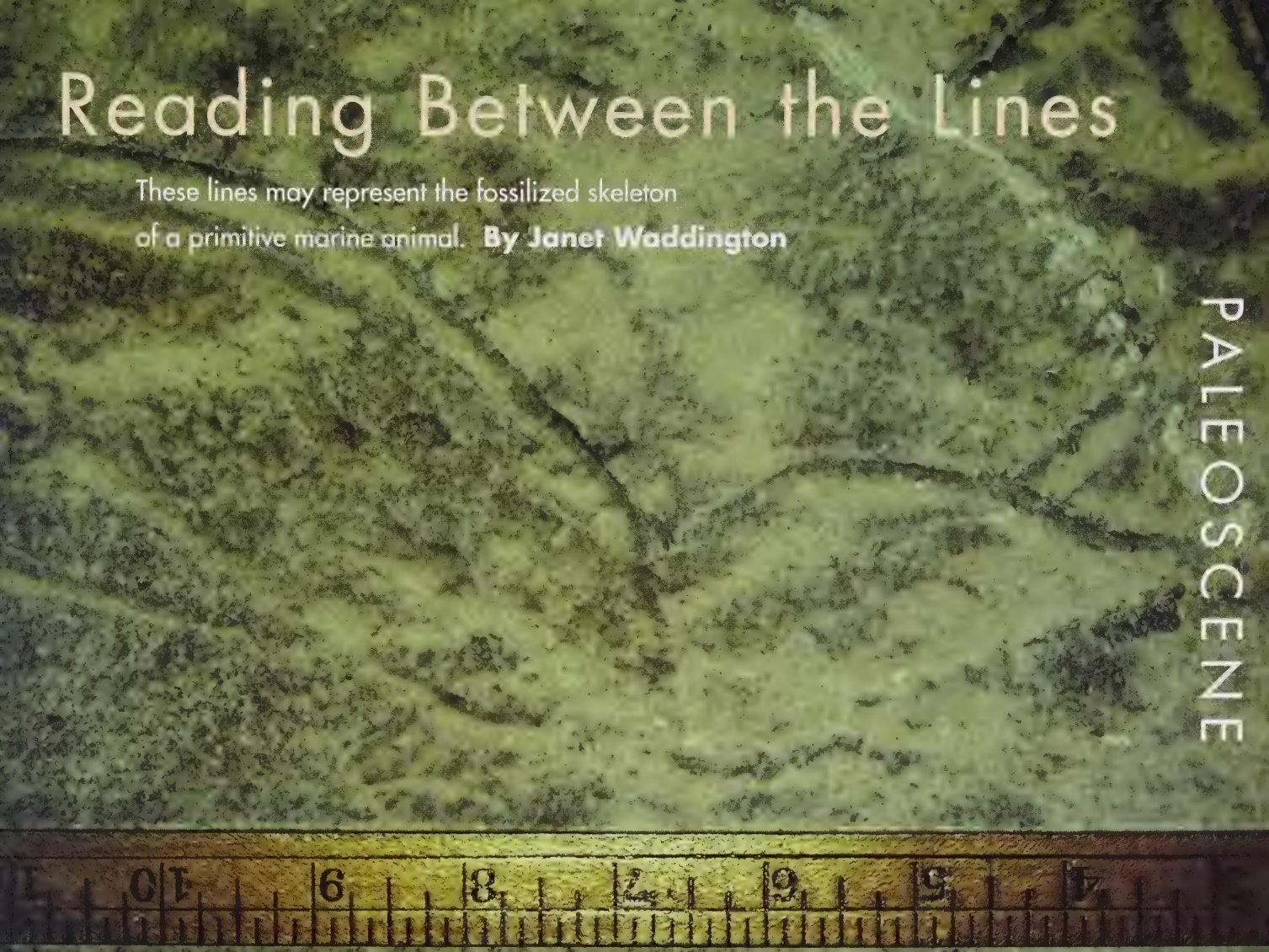
Reading Between the Lines

These lines may represent the fossilized skeleton of a primitive marine animal. **By Janet Waddington**



Andricus Peters's fossil from Wiarton, Ontario. The curved lines may represent flattened tapering tubes.

A. PETERS

Dear PaleoScene,

Please let me know what this fossil is. I found it in Wiarton, Ontario, while working in the quarry.

Thank you,

ANDRICUS PETERS

Dear Andricus,

From your photos, my first impression is that this is a weathered example of an enigmatic fossil called *Sphenothallus*. This type of fossil usually has a long and narrow but flexible, gently tapering tube with a cup-like attachment disc, or holdfast, at the pointed end, which once anchored the organism to the sea floor, or to a hard surface such as a shell or another *Sphenothallus*.

The genus was named in 1847 by James Hall for a set of fossils from New York. Derived from the Greek words *sphen*, meaning "wedge-shaped," and *thallos*, "young shoot," the name reflects Hall's belief that the fossils represented land plants. Many organisms that do not move about (called sessile organisms) both fossil and living—sea lilies, for example—were thought by early naturalists to be plants and were named accordingly.

Since then, *Sphenothallus* has been recognized as the remains of a marine animal. One palaeontologist named similar fossils *Serpulites*, which simply means "like *Serpula*," a known modern marine worm that builds itself a tube to live in. *Serpulites* is now thought to be just another form of *Sphenothallus*. Most recently, *Sphe-*

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ROM 981 / JANET WADDINGTON, ROM

Serpulites, now called *Sphenothallus,* from the Lindsay Formation, Ottawa, Ontario, 460 million years old.

nothallus has been assigned to the large group of animals called Cnidaria, which includes corals, jellyfish, hydra, and a host of other primitive organisms, most of which live in the sea. There it joins a group of other tubelike fossils, some of which lived at the same time and in the same environments.

In *Sphenothallus,* the broader end of the tube was open, and evidence suggests that it may have been inhabited by a polyp (similar to a modern hydra) that could have used its tentacles to grab small swimming or planktonic prey as it passed by. Often, all that remains of the fragile tube, or theca, are two narrow longitudinal thickenings, so the fossil may appear to be just two almost parallel, threadlike lines in the rock, tapering to a point at one end. The space between the lines may hold dark traces of the original thecal material; the space may be slightly raised if the tube had filled with mud after the animal died; or it may be collapsed if the tube was empty when it was buried. Occasionally, branching forms occur, and multiple individuals are often found clustered together.

The host rocks in which *Sphenothallus* is preserved suggest that it thrived in conditions that would be considered harsh for many other marine organisms—soft fine mud; varying salinity; and, often, low oxygen. These conditions combine to preserve delicate features that might otherwise have been destroyed by predators or scavengers on the sea floor. The rock in the Wiarton area has been interpreted as fine mud deposited in poorly oxygenated shallow lagoons that once existed there, perfect for preserving these features. *Sphenothallus* may have been equally happy in normal marine conditions, where traces of holdfasts have also been observed.

This fossil is widely distributed, and looks pretty much the same throughout its range. It has been found in rocks ranging in age from Lower Cambrian (515 million years) to Late Carboniferous (320 million years), and geographically across four continents: in China, South Korea, the Czech Republic, Bolivia, British Columbia, Ontario, Quebec, and many parts of the United States. It is not uncommon to uncover it among the thinly bedded banded horizons of the Eramosa Formation (from the Silurian period, 425 mil-

ROM 58838 / JANET WADDINGTON, ROM

Sphenothallus from the Bear Gulch Member, Montana, 330 million years old. Note the circular holdfast at the base, and also near the top, where another *Sphenothallus* is attached.

lion years old) in quarries around Wiarton, although it may be overlooked in favour of more rare fossils that "look like something."

But there are other, more prosaic ways to interpret your fossil. If it encompasses not just the thin curved lines, but also the general amorphous shapes surrounding them, we could be looking at a broader sheet-like strip, such as a piece of an algal or bacterial mat, similar to pond

ROM 59231/JANET WADDINGTON, ROM

Sphenothallus from the Eramosa Formation, Wiarton, Ontario, 425 million years old. These specimens appear to be branching, although holdfasts may be obscured behind the main tube, or theca.

slime, that had torn off from the sediment surface and twisted over on itself. In this case, the curved lines could represent the edge of the crumpled sheet. Since the dark bands in the Eramosa sediments were caused by cyclical or seasonal accumulations of slime, this explanation also fits with the location.

Either way, though your fossil may represent a lowly life form, it was one that quietly outlasted many grander things and was preserved to see the light of day again.

Janet Waddington is assistant curator of Paleontology in the ROM's Department of Natural History.

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Cultural institutions are no different from individuals: we all need friends in our support network. Since 1981, the Friends of the Far East (FFE) has been an integral and supportive part of the Bishop White Committee, a group started in 1960 by Louise Hawley Stone, whose record $45-million endowment has enabled the ROM to pursue significant acquisitions, continue its extensive research program, and publish books and articles on its many collections. The committee's mission—and, by extension, the FFE's—is to encourage public interest in the Museum's Chinese, Korean, and Japanese collections.

From intimate events at the homes of private collectors and donors, FFE events have grown into public presentations at the Museum to accommodate our growing numbers. This past spring, FFE reached a particularly heartening milestone. Thanks to significant donations from Friends and committee members, as well as FFE membership fees, the Bishop White Committee was able to fulfill its long-time goal of donating $1 million toward the endowment of a second Bishop White Curator, this one dedicated to Japanese Art. The timing was apt as Canada and Japan celebrated 80 years of diplomatic friendship earlier this year, an auspicious milestone in East Asian culture. The new curator will be in place for 2009.

926.18.424 SIR EDMUND WALKER COLLECTION / BRIAN BOYLE, ROM

Japanese ukiyo-e print depicting a hunting party. By Kitagawa Utamaro c. 1790.

For many members of the Bishop White Committee and the Friends of the Far East, the ROM is a home away from home. If you appreciate Asian culture, we invite you to join our family of Friends, committed to building on our accomplishments in support of the Far Eastern section of the ROM's Department of World Cultures.

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Image: Scroll Painting, Qing Dynasty, China, 18th century

Hertha's Legacy

A Gift of Endowment

A love affair can last forever. For Hertha and her husband, Hans, it is their shared love for minerals and gems that will endure.

Hertha Frohberg Haist was a favourite visitor to the mineralogy department. She had a delightful sense of humour, a connoisseur's approach to minerals and gems, and like her late husband who was a mining consultant, revelled in examining newly arrived specimens at the ROM.

The ROM has an incredibly rich mineral collection today thanks to this couple. On their world travels together they amassed one of the finest private collections in Canada. Purchased by Inco Limited and gifted to the ROM, the Frohberg Collection is enthusiastically described by curatorial staff as "fabulous," "exquisite," and "rare."

When Hertha passed away peacefully last year, at age 104, she memorialized her life-long love by creating the Dr. M. Hans Frohberg Fund through a gift in her will. The annual income from this permanently endowed fund will allow the purchase of new minerals and gems for the Museum.

Hertha and Hans lived extraordinary lives. Their legacy is their contribution to the science of mineralogy and the enjoyment Hertha's gift will bring to future generations of ROM visitors.

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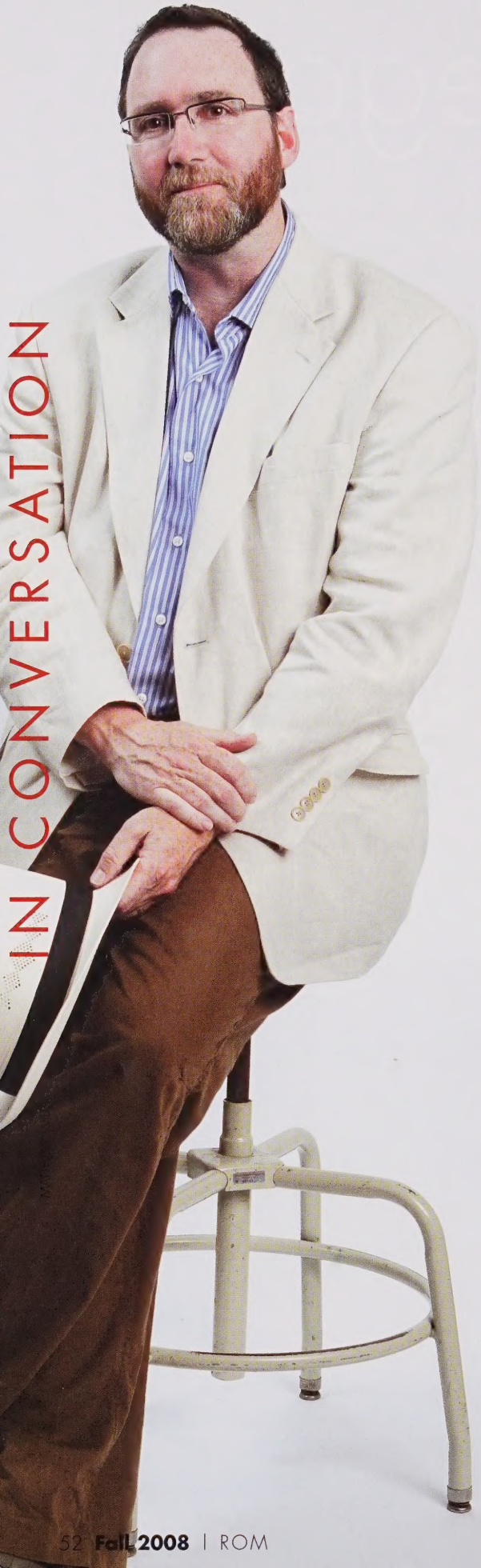

Ray Cronin

A Distinction of Voices

Ray Cronin, director and CEO of the Art Gallery of Nova Scotia and curator of the 2008 *Sobey Art Award Exhibition*, spoke with Francisco Alvarez, managing director of the ROM's Institute for Contemporary Culture (ICC), about his work. The Sobey exhibition, hosted by the ICC and presented by Scotiabank, features recent works by five important Canadian artists under the age of 40.

Francisco Alvarez: Can you explain the Sobey Art Award's purpose?

Ray Cronin: The award aims to create attention and promote discussion about Canadian contemporary art among the public. The art world always has its opinions, but we're trying to broaden the discussion, to help people realize that contemporary art is worth seeking out.

FA: What are the key issues in the art world right now and how do the finalists address them?

RC: There are so many, but I think the artists in the show reflect much of the tone of contemporary art these days. Issues referenced in their work include ideas about identity, the mutability of history, the effects of consumerism, a re-thinking of aspects of art history, and the distorting structures of fame.

FA: What criteria are considered in selecting the artists?

RC: Essentially the jury is looking for excellence. The basic interest is always in work that is rigorous, challenging, thoughtful, and engaging on multiple levels. They look at such factors as how the artist's work has developed over time and whether it conveys a distinct voice or a clearly articulated approach. But we've never set strict criteria because in the end it comes down to the curators' professional opinion. That informed subjectivity is what gives the process its possibility for surprise.

FA: What makes a piece of art stand out?

RC: For me, it's partly that the work is a fully conceived object in its own right, not an illustration for something else. Also a feeling that there is something unique or distinctive about it; it's not that everything has to be new, but I look for a distinctive take. Intellectual rigour is key. A work shouldn't be used up with a cursory analysis. And I'm always looking for a certain sense of humour. But every curator would answer this differently.

The *Sobey Art Award Exhibition* is on view in the ROM's Centre Block, Level 3, until October 13, 2008. The 2008 award winner will be announced on October 1.

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